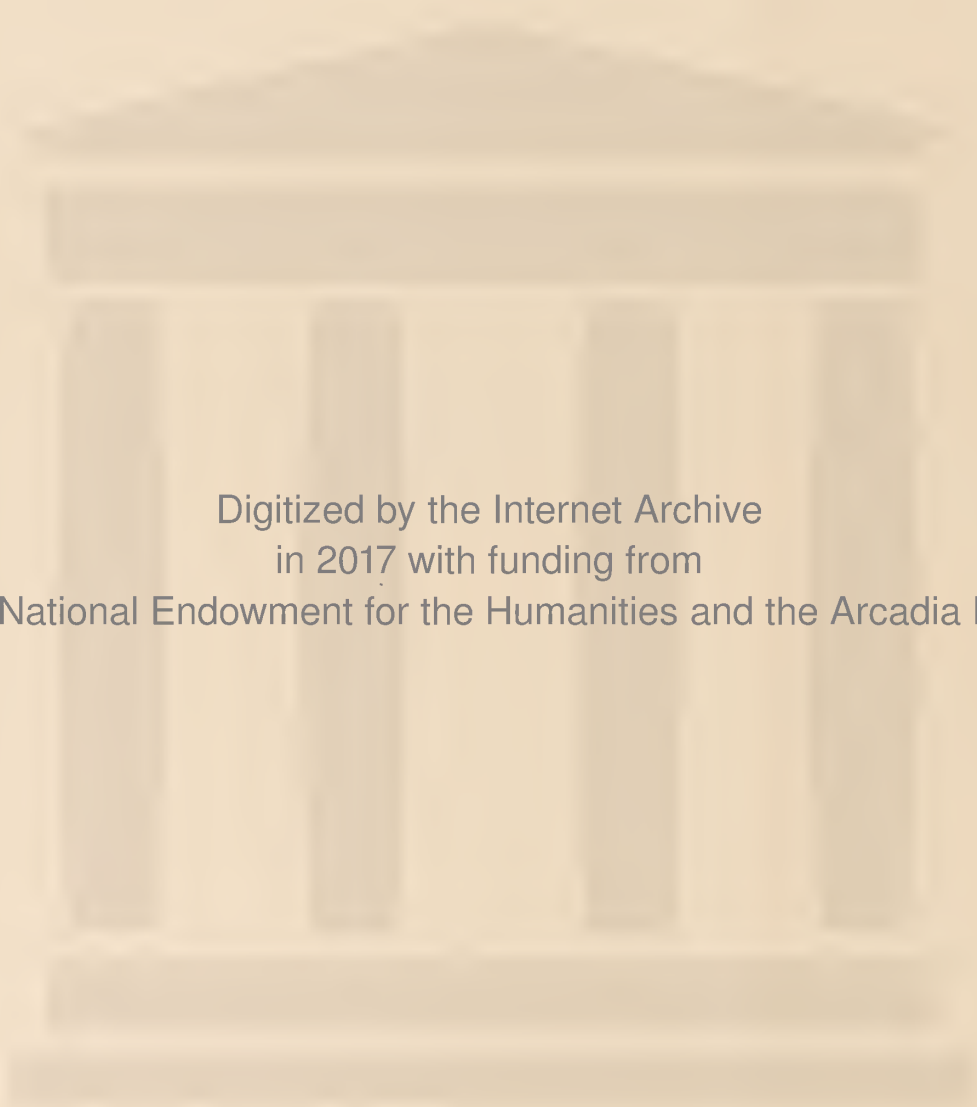


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Rhode Island Medical Journal

Vol. XXIII, 1935

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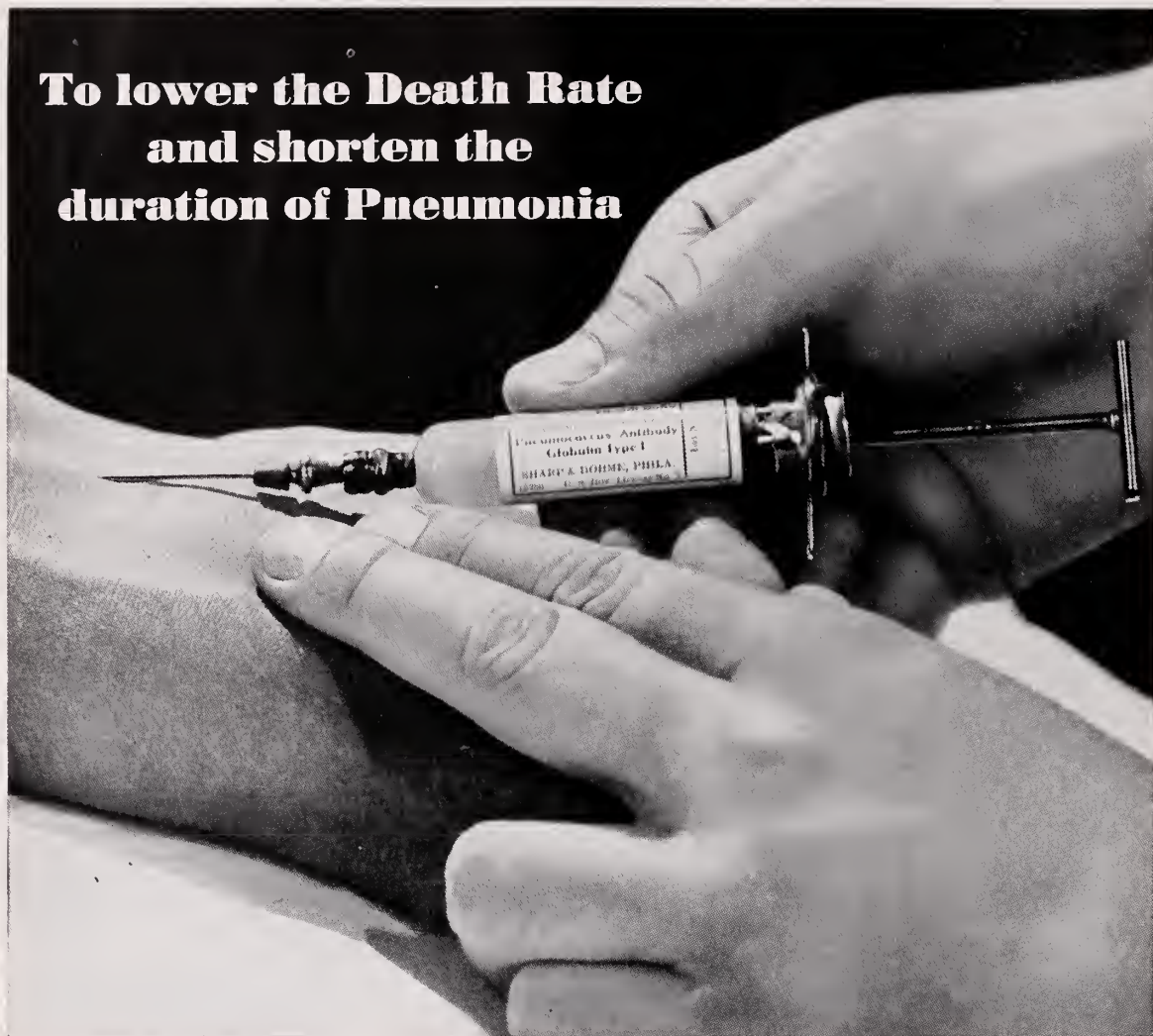
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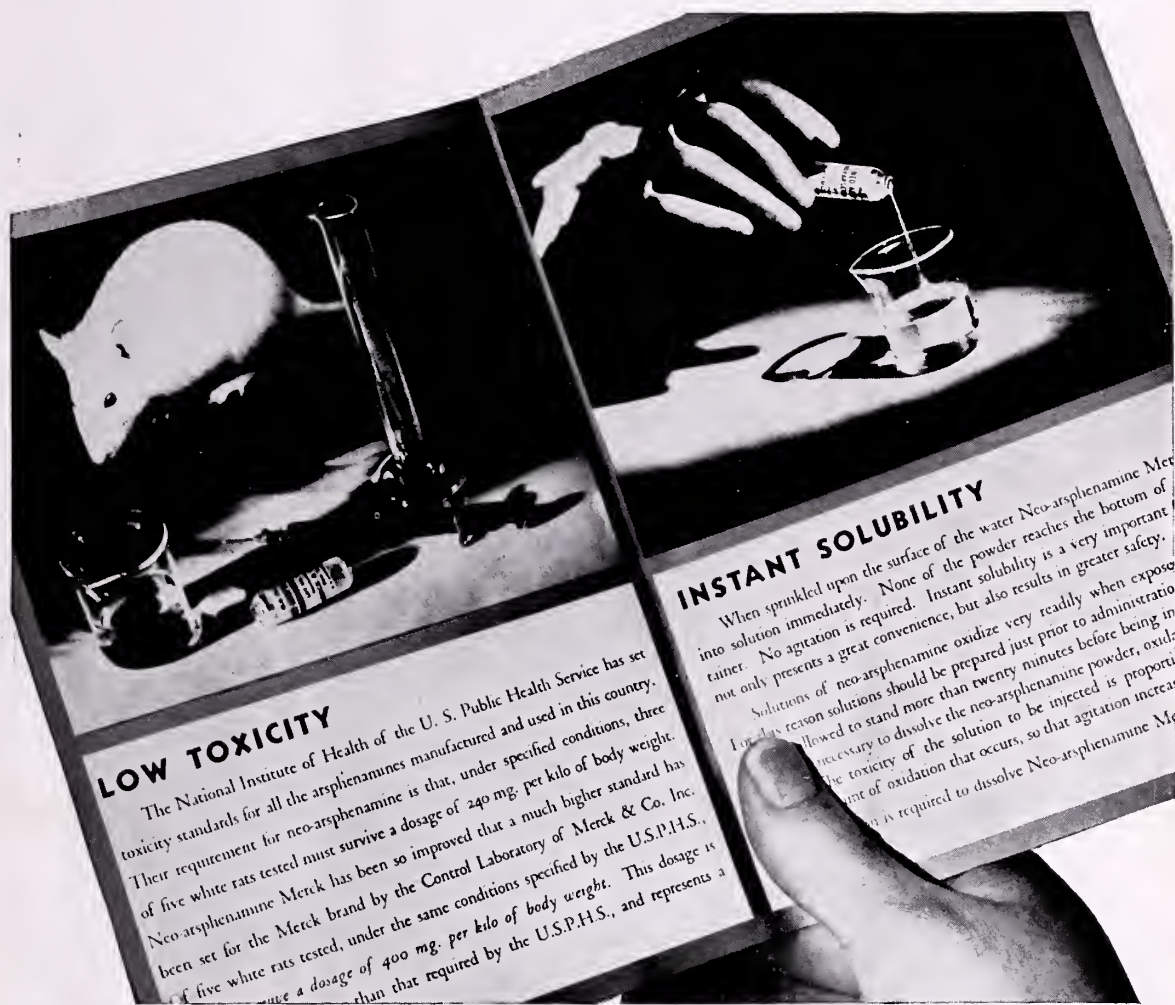
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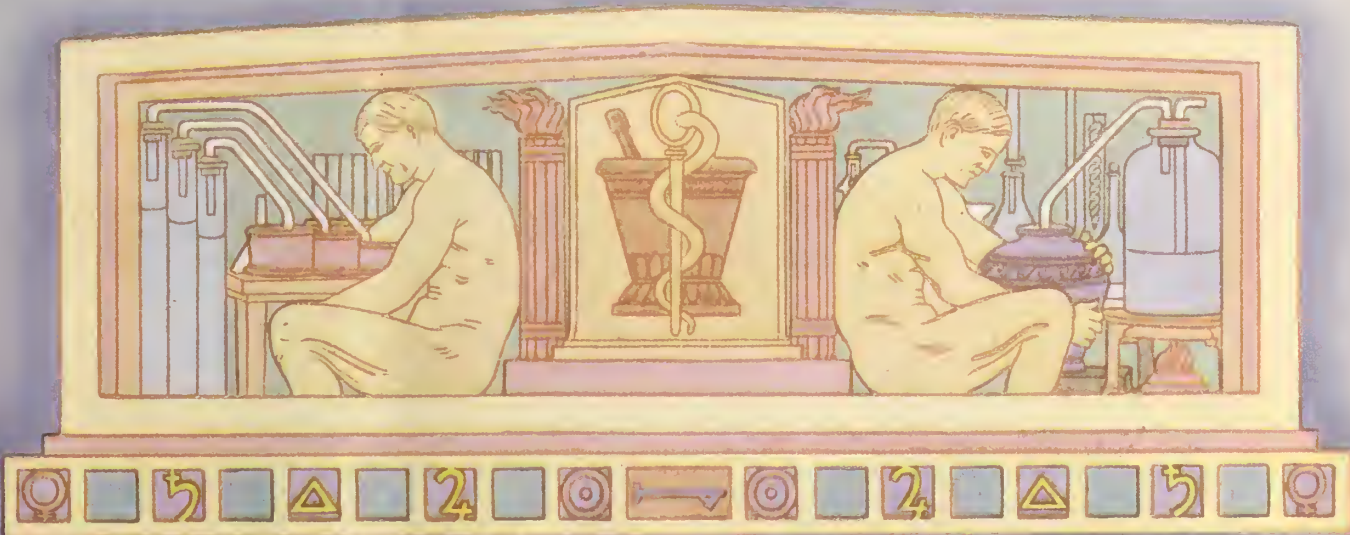
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ORIGINAL ARTICLES

IF I WERE A MEDICAL MAN*

By W. HENRY RIVARD

Dean of R. I. College of Pharmacy

I would give my personal support and I would try to induce my Association likewise to lend its support to any advance toward a higher degree of professional service by Pharmacists, and would give aid in every way to establishments founded on a high ethical basis.

I would express to Pharmacists generally my favor for the open view prescription department where prescriptions are compounded in view of the patient, not only because such a department stimulates a desire on the part of the public to visit the Doctor and receive treatment, but principally because it will stimulate the Pharmacist to maintain more wholesome surroundings, more and better equipment and a sounder, more responsive attitude on the practice of Pharmacy. All will benefit: Physician, Pharmacist, Patient. By increased use of the prescription department will come a more pronounced professional aspect to Pharmacy. Most Pharmacists love the professional part of their calling and would willingly exchange miscellaneous merchandising for prescription service. With reference to prescriptions I might add, after all is said, it remains a pertinent fact that psychology still plays a very important role in sickness, and the prescribing of bitter-tasting and rather unpleasant forms of medication is more or less expected by the patient, notwithstanding the prevailing ideas of the past quarter century that patients must receive only pleasant-tasting medications. There are some men whom I know who have built for themselves a tremendous practice by utilizing such psychology, and it has helped Pharmacy as well.

I would take cognizance of the fact that approximately 68% of all medication is sold over the counter and not by direction of the Physician. Some of

this is because of repeat prescription filling without consultation, some because minor symptoms are made light of by Physicians and the patient tries to doctor himself, some by counter prescribing by Pharmacists and for various other reasons.

I would not dispense my own medications with or without charge because by so doing I defeat myself and make it impossible for Pharmacists to establish themselves ethically. There are 60,000 drug stores in the United States. The average number of prescriptions per store per day is between four and five, some having two or three hundred and some less than one a day. Think of that! A great change is occurring nationally. More and better men are being prepared for Pharmacy by approximately 60 grade-A Colleges of Pharmacy, with four-year courses. These men will not be satisfied with present conditions and they will be capable of rendering a much better, a sounder, more professional service, by means of your help and by your acceptance of their professional proficiency. Time will probably bring to you two classes of stores—one will be a drug store, a place where drugs and simple preparations will be sold over the counter along with present day merchandising; probably the other will be a Pharmacy, much more ethical in character. Even in the middle part of the sixteenth century we had druggists and apothecaries. Druggists sold drugs and simples. Pharmacists were defined by Renodaeus of that time as follows: "The subject of Pharmacy is the materials of Medicine, the end and scope thereof, the one composure of the same, and the Apothecary that dares to attempt or assay further, breaks his bounds and limits, is to be accounted a Mountebank, a Quack and a Deceiver. The office of an Apothecary, therefore, is only to exercise or compose certain ingredients to a medicinal form and to adhibit them in a decent manner to salutiferous use, according to the prescription of some skillful physician."

I would choose my Pharmacist as I choose my friends, a personal matter. There is one Pharmacist in almost every neighborhood who should be worthy of help. I would make him my confidant. I would confer with him. I would honor and respect his calling. I would try to influence him to higher pro-

*Read before the Rhode Island Medical Society December 6th, 1934.

fessional attainments. I would exact from him the very best of dependable service. I might make him come to my office and get many of my prescriptions to be filled and delivered. Some others I might telephone to him and in any way possible I would help him maintain a professional institution, and not to forget, build and maintain for myself a clientele. I would have my blanks printed "Not to be copied or refilled." Such methods would avoid much repeat business and duplex medication for aunt, sister and cousin, which has no rhyme or reason.

I would not question the Pharmacist's right to adequate charges for his work as a Pharmacist, nor would I price my prescriptions in advance of the Pharmacist.

I would not countenance counter-prescribing in his establishment and I would ask for complete privacy of my prescriptions. No one but him should know what I prescribe, neither salesman, nor Physician, much less a patient.

I would not give a written prescription for any chemical somnifacient or hypnotic unless absolutely necessary, because these substances are being greatly abused by the public and are proving detrimental to the health of many. I would have these delivered on telephone order.

I would write for U.S.P. or N.F. equivalents of commercial trade-marked medications, thereby creating savings, and would ask the Pharmacist for his advice here.

I would acquaint myself with the laws pertaining to Pharmacy and would report violations to a committee of my Association, appointed for the purpose, which would be empowered to present such matters first, to such a committee of the State Pharmaceutical Association or, if none, to the State Board of Pharmacy for action.

I would never give my patients a package of medication with a label or circular denoting contents, nor would I advise my patients to buy medication by name (excepting simple medicines). These bring loss of practice to you, sometimes harm to the patient and, while making it very splendid for the various manufacturers, fail to support the Pharmacist in his struggle to render a commendable professional service.

I would certainly, to the best of my ability, try to elevate the practice of Pharmacy because of mutual needs.

I would try to have my Association meet with members of other associations to the end that

Medicine and Pharmacy might come to a better understanding of each other and correct abuses from which both now suffer.

And now, in closing, as a Pharmacist and as Dean of the College I have the honor of representing, I ask for your kind advice and constructive criticism, without sympathy, as to how my College, my Association and I may best serve the members of your honorable Association, and I wish to thank you sincerely for this opportunity to address you as a body. Many of you I know well, and honor and respect I have for all.

Would that I might live to see a more pronounced unity and friendliness between Medicine and Pharmacy; a more professional aspect to this time-honored Profession of Pharmacy. I will never be satisfied with the work of our Colleges until that time comes.

SOME NERVOUS AND MENTAL PROBLEMS OF CHILDHOOD: ILLUSTRATIVE CASE REPORT*

By CHARLES BRADLEY, M.D.

EMMA PENDLETON BRADLEY HOME, EAST PROVIDENCE, R. I.

The management of many nervous and mental disorders of childhood has devolved mainly upon the specialist. However, many procedures in this field should be of interest and value to those practicing other branches of medicine. Primarily to illustrate some methods in the handling of these disorders, I wish to report the following case from the records of the Emma Pendleton Bradley Home, and in conclusion to comment on some of our observations.

Case Report

Emily P., born in a neighboring city in 1921, gave a family history, and record of birth and infancy, that was essentially normal. Her only illnesses had been chicken pox at three, measles at five, and German measles at nine—all with rapid and uneventful recovery. She had always been considered intellectually precocious, and her records in school and in psychometric tests were brilliant. Throughout early childhood she had been left-handed, but at the age of nine, while in the fifth grade, a school teacher by considerable effort successfully trained her to use her right hand.

*Read before the fall meeting of Rhode Island Medical Society at the Emma Pendleton Bradley Home, September 6th, 1934.

The present illness started at 9½, with the onset of periodic uncontrollable laughing spells. These were first observed during school hours, and no precipitating factors were evident. As many as ten attacks daily were reported. In all of them the patient would interrupt whatever she was doing and bend her head forward. Her face would flush and she would begin to giggle. She usually did not fall, and at times would grasp her body, her thighs, or some nearby object for the duration of the attack—perhaps half a minute. There was occasional urinary incontinence. She usually recalled her attacks, and on one occasion described them as follows: "It feels funny. I feel as though I were going to laugh at something. I feel funny all over; I don't laugh but they say I giggle. The spells don't hurt me; they're pleasant, and I like them."

The same type of seizure began to occur during sleep. About two months after their onset, she had four generalized convulsions at intervals of an hour during one night.

Over a period of three months the child's appetite became voracious, and she gained 17 pounds in weight. Her disposition coincidentally began to be irritable.

As conventional luminal treatment at home gave no relief, she was studied on the wards of one of the Boston hospitals for two weeks during the summer of 1931. No diagnosis was made, nor was phenobarbital medication effective there.

The girl was first admitted to the Emma Pendleton Bradley Home in October, 1931, after she had been ill for six months. She remained in the hospital for one year. Routine studies at this time were negative with the following exceptions: there were disfiguring, protruding upper incisor teeth; in tests of mental ability her achievements were most precocious; and she was noted to be ambidextrous.

Following admission 200 to 300 attacks were noted during each of her first three months in the hospital. They occurred during both the day and the night. A few nocturnal seizures were severe enough to be reported as convulsions. On rare occasions she slightly injured herself by falling.

So frequent were her attacks that this child was a practical invalid due to their interference with her play and school work. However, the illness was much more distressing to the family than to the child, who accepted it surprisingly quietly.

Because of the bizarre nature of the attacks and the complacent way in which they were accepted,

the disorder seemed to be mainly hysterical. The treatment consisted primarily of giving the seizures no obvious attention. This was supplemented on two occasions by superficial electrical stimulation of the child's back and thighs, accompanied by strong positive suggestion that this would cure her illness. After the second week of the latter treatment the attacks suddenly and dramatically began to diminish from their usual frequency of 15 daily. Within a few days (it now being the child's fourth month in the hospital) she became entirely free of attacks, remaining so without further treatment until her discharge eight months later.

At home during the fall of 1932 this girl remained entirely well for about two months. Then her same uncontrollable laughing spells began to recur during the day and night. By the following spring she was having about 10 attacks every 24 hours. Her mother reported that her disposition, previously "sweet and affectionate," had become "selfish, irritable, and boisterous." She was accordingly readmitted to the Emma Pendleton Bradley Home in June, 1933, then being twelve years of age.

As on her previous admission, the only abnormal physical finding was the protruding upper incisor teeth. Extensive laboratory studies were negative. Repeated psychological tests continued to show precocious intelligence. Thorough investigation of handedness tendencies and lateral dominance showed a general preference for the left hand and eye, although superficially the patient was ambidextrous.

Because this girl had relapsed after her previous recovery on simple suggestion alone, attempts were now started to obtain a more thorough understanding of her mental and emotional life. An excellent personal contact was made by one of the physicians. The child discussed frankly and extensively her past life in all its phases, including many incidents of which she had previously told no one. In the mass of information obtained in the course of almost daily interviews for about four months, the following items came to light. Many of her attacks were precipitated by embarrassment. Some things which commonly embarrassed her were a self-consciousness of the protruding teeth, ordinary social blunders, and thoughts of sex. These last intruded frequently, and she felt guilty, believing persons about her realized what she was thinking. Though she had been preoccupied since the age of six with a lively interest in sex, this subject otherwise had

no obvious relationship to her illness. Until her seizures necessitated hospitalization (rather against her will) she enjoyed them, feeling that they brought her attention and set her apart from other children.

During this period of investigation she attended the hospital school. Tasks requiring little and great application, both in time and effort, were prescribed over different observation periods. In all of these the quality of her work was far below her capacity, as indicated by tested mental ability.

Emotionally she appeared very blunted, reacting scarcely at all to any degree of praise or blame.

During this period of four months the attacks continued unabated. So far they had been considered and investigated as of functional or hysterical origin. With no progress in all this time, proof for or against this thesis began to be urgent.

McQuarrie,¹ Jacobsen² and others have contended that producing a positive water balance in a patient will result in seizures if the subject be a true convulsive patient, whereas this procedure will not do so in patients who are merely hysterical. Following McQuarrie's¹ technique, our patient's fluid balance was first established by rigidly controlling her fluid intake for ten days. She was then put to bed, and every three hours was given .5 cc. pitressin (a Parke-Davis posterior pituitary product) subcutaneously, and 18 ounces of water orally. She was weighed every six hours. The anti-diuretic properties of pitressin were effective, for in the first 12 hours the patient voided only 10 ounces and gained three pounds in weight. She began to complain of headache and nausea, and during the sixteenth hour had a severe generalized convulsion. This lasted two minutes, was followed by 10 minutes of unconsciousness and 12 hours of mental haziness. The treatment was stopped with the production of the convulsion, which was interpreted as presumptive evidence that we had been dealing with a true convulsive disorder, rather than a primary behavior problem.

Conventional anti-convulsive hospital treatment was now started. An encephalogram was done with normal results, and ketogenic diet started immediately thereafter. Ketosis was adequately maintained from the start, as shown by the presence of acetone in the urine. As is commonly seen, the child was free from attacks for a day or two following the encephalogram. The seizures then recurred in the previous manner during four weeks of diet. Early

in December, 1933, phenobarbital, one-half grain three times daily, was administered. The response was prompt, for the seizures entirely stopped within three days, and not one has been reported in the ensuing nine months.

Following the initial relief the diet was gradually discontinued, and for the past three months phenobarbital alone has been used.

The remainder of this girl's treatment has been directed toward establishing a satisfactory mental and emotional status, and may be considered a necessary complement to the medical control of her convulsive disorder.

Orthodontia, through the co-operation of the Samuels Dental Clinic at the Rhode Island Hospital, has produced rapid and excellent cosmetic results, so that disfiguring, protruding teeth are no longer a constant source of emotional irritation for this child.

By the time the patient was relieved of attacks, her hospital physician, through prolonged personal contact, was able to use his interviews to convey encouragement and to make simple explanations of the mechanisms at work. She acquired in a few weeks a good understanding of her emotional difficulties, and thus avoided the embarrassments that had so frequently precipitated seizures in the past.

The school teacher, as the result of some months' experience with this particular patient, was able to present a scholastic program so carefully graded that the child began to derive satisfaction from work well done, and rapidly improved the quality and quantity of her work. Training to re-establish use of the left hand was carried on simultaneously.

During this latter period of treatment from the physical, mental, and the scholastic viewpoints, the child's emotional life sustained several changes. With the first relief of her major problems, and with evidence of success self-apparent, she became very demonstrative. Instead of appearing blunted she over-reacted to praise and blame by signs of elation and by crying a great deal. Gradually equilibrium was restored and for some months her reactions have been those of a well and happy adolescent girl.

Psychometric studies just prior to relief from seizures gave evidence of deterioration from the original brilliant intellectual status apparent during the first months in the hospital. Recent tests show improvement in this field corresponding to recovery along other lines, and fundamental tests for dom-

inance indicate some loss of ambidexterity, and a return to the previous decidedly left-handed condition.

At the present time special treatment other than phenobarbital has been discontinued. The future is, of course, problematical in view of the complicated and stormy past three years, but recovery to date seems excellent.

Comment

I am reporting this case to you primarily as an illustration of some problems encountered in our work, and to demonstrate a few methods of solving these problems.

Those of us specializing in neuropsychiatric and child-guidance work are often, I think justly, criticized for being too far-fetched in our interpretations, and for couching them in a language so foreign to most physicians that the reports are unintelligible. In the case under discussion it is evident that no occult means of diagnosis and treatment were used. Practical problems were met with common sense as they arose. The basis of the treatment has been more empirical than theoretical, and fortunately it was successful.

Probably what seems most impractical in the treatment of this girl is the length of time consumed. In planning the time for investigation and treatment of a patient with behavior disturbances, allowance must be made for at least three periods. In the first place the physician needs ample time for becoming thoroughly personally acquainted with his patient. Next, the periods following each change of treatment, for observation of its effect, are matters of weeks at least. In the third place, it has proven valuable to have several weeks of supervision after the child has entirely recovered, until the new behavior and reactions become, as it were, habitual. These all preclude haste.

The absurdity of making a "snap diagnosis," of describing a clear-cut clinical entity, or accurately predicting the results of treatment following a few initial examinations in a case of the type presented is self-evident.

However, there are some clinical aspects of this case about which we can be more positive.

The contagious disease history of the patient was carefully recorded. The literature at present contains an increasing number of reports of encephalitis following the virus diseases, vaccination, and even the administration of sera. The appearance of behavior and convulsive disorders after encephalitis

is well known so that thorough study demands an accurate contagious disease and immunization history for any child thus affected. This was obtained for our patient although it was of no direct aid.

The fact that this child was left-handed, and that the onset of seizures coincided with an attempt to shift her handedness, has received careful consideration. The work of Orton³ and others has emphasized the relationship of handedness and eyedness to various educational and speech problems. At the Emma Pendleton Bradley Home there is an amazingly high incidence of left-handedness in the children presenting behavior disturbances and convulsive disorders. The precise relationship of this observation to the problems in question is not clear, and is at present an object of investigation. Just now we can only cautiously suggest that disturbed dominance may sometimes be one indication of fundamental instability, and that attempts forcibly to shift handedness in certain individuals may precipitate clinical illness. Accordingly such attempts had best be cautiously carried out.

Methods of clearly distinguishing organic disease from its hysterical counterpart are eagerly sought in many fields of medicine. In the manipulation of water balance to produce convulsions in susceptible subjects there seems to be one clue to differentiation. McQuarrie¹ and Jacobsen² report series of cases in which they appear accurately to separate true convulsive from hysterical cases by this method. At present the use of pitressin (a Parke-Davis posterior pituitary product free of oxytocic qualities) to diminish renal excretion temporarily is one practical way of establishing positive water balance in humans. However, the production of a generalized convulsion in any patient is a drastic diagnostic procedure. This was the reason it was employed only after exhausting other methods of study in our patient.

The diagnostic value of encephalography has been well established in the past five years by Pancoast,⁴ Fay,⁵ Crothers,⁶ Eley⁷ and many others. In convulsive disorders of childhood perhaps its greatest practical value is to localize or rule out organic lesions which may be susceptible to neurosurgical treatment. With any form of convulsion there is always the possibility of such a lesion. Incidentally, removal of the bulk of spinal fluid, as carried out in encephalography, supposedly dehydrates the central nervous system, and is therefore

(Continued on page 8)

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EDITORIALS

NEW ENGLAND HEART ASSOCIATION

Last year the New England Heart Association changed the time of the regular meeting to the last Monday evening of the month. Certain hospitals were also assigned dates of meetings the programs for which they are held responsible. The plan was tried out last year with very excellent results. It was found the immediate work of each hospital was reviewed. The programs seemed to be of greater practical value to the practitioner and interest increased. In Boston the attendance has grown steadily.

The Rhode Island Hospital has again been selected for a program the latter part of May, 1935. It is the only hospital chosen outside of Boston. This meeting ought to be of considerable interest to the medical profession in Rhode Island, and should merit a large attendance.

HOSPITAL STAFF RETIREMENT

In common with many other fixed rules, that pertaining to the retirement age of physicians from hospital active staff positions needs more flexible interpretations or elastic limits.

Many physicians who reach the retirement age are still extremely valuable members of the staff—progressive, modern, fully as alert as their younger brethren, vigorous, and possessing the compound attribute of skill, tempered by experienced judgment. Loss of these men is a misfortune to the hospital especially because of their ability to train understudies who will eventually succeed to positions of trust.

Conversely, other men are too busy, less vigorous, have too many other interests, lose their more youthful enthusiasms or are either unwilling or incapable of medical progress. Their retention on an active staff is disadvantageous from two angles: First, they may either neglect or be unwilling to carry their share of the necessary work; and second, they are a barrier to the promotion and desirable advancement to responsibility of younger and more capable men "waiting in line," who not only need but should be given larger opportunities for training that is often gained only by practical experience.

It would seem to improve the whole situation if the hospital trustees, in their wisdom, provided a more flexible retirement rule, with a minimum age at which the doctor might voluntarily retire and be retained on the consulting staff, and a maximum age when retirement was required, with several years of interim in which the trustees might, at their discretion, ask the individual to retire without embarrassment to themselves or difficult explanations to the physician.

Advancing age, sometimes coupled with indolence, is like the widely flouted "halitosis": "His best friends can't and won't tell him."

AND YET ANOTHER "CLINIC"!

Comes now the welcome news that a "pay" clinic is to be established for the benefit of those who need attention to the ear, nose and throat. This is established by sixteen of our very best specialists, all of whom are members of the staffs of our largest hospitals.

A clinic may be described as a place where first rate professional attention may be had for a very little or no money. A "pay" clinic is one where the recipient is expected to pay a small fee. There is probably no member of this staff who does not agree that all hospital privileges are abused and that many persons apply to the hospital for aid who are abundantly able to pay. We do not know very much about "God's poor." We do not know how many of them are really poor, how many have radios, autos, good clothes and go to the movies. In the old days poor people were poor people, now the ward cases have boudoir caps and lace nighties. Hot house flowers adorn the sick room which undoubtedly hastens convalescence and saves the hospital expense thereby. When the patient goes home, a follow-up system sees that medical care is continued and a social worker, *e pluribus unum*, sees that medical care is continued and notes the success of the operation or treatment. This would be a good time to note, in addition to factors of medical interest, the surrounding conditions such as luxuries, radios and other evidences of well being. Now it may be that this system is in force, but we have never seen such a report. There seems at the present time to be a total disappearance of what used to be called self respect. Where are the

poor but proud? The present day mind is an unprincipled mind. Why should I pay for a thing which I can get for nothing? Gone is the type of mind which, when overtaken by sickness, saves and scrapes in a small way until he has discharged his financial obligation. Now this new clinic is probably no different from any of the other medico-charitable organizations, except that the small fees which are received accrue to the members of the staff. The "cut" will not be large. It will for the most part be a labor of love, yet it is certain to meet with a certain amount of disfavor because of its financial principle. The notion of the "cut price doctor" is inseparable from it. Instead of the doctor giving a greatly reduced fee to someone whom he knows to be worthy he will treat a stranger who may or may not be worthy. It is a very dangerous precedent. It opens the way to still further hospital abuses; it still further pauperizes the poor and it makes imposition and mendacity still more easy. It immediately comes in competition with similar departments of hospitals already organized at great trouble, pains and expense. We now have a cancer clinic, a birth control ditto, a hay fever, a tumor, a heart—in fact, a clinic for almost every known disease, many of them largely run by "trained nurses" who often railroad profitable cases into the offices of their doctor friends. This "clinic" will probably be just like the rest of them. Not long ago one of the most prominent doctors of this city informed the writer, "When you send a case into the XYZ hospital you need not expect to see that patient again. That is what we are there for, and that is the way we do it." This was the most frank and brazen statement that could possibly be made, yet it is what is evidently going on all the time.

It is to be believed that the abuse of clinics and hospitals could be stopped. Let the matter be investigated and where there is a law against it let this law be enforced. If we are going to have State Medicine, let it begin here and let the black list grow. Report nurses who purvey to particular doctors and see to it that they are tried and if guilty removed from their positions of confidence and trust. Clean house and clean it thoroughly. Close the offices of nurses who are practising medicine under the guise of "laboratories" and drive them out of business. And establish a committee in the Rhode Island Medical Society which will represent the profession and stamp out an abuse which is a scandal to both physicians, nurses and the public.

NERVOUS AND MENTAL PROBLEMS

(Continued from page 5)

an excellent means of initiating the dehydrating effects of the ketogenic diet. In several children's clinics, including the Bradley Home, ketogenic diets are usually started immediately after encephalography.

The value of ketogenic diets as routine treatment of all convulsive disorders is still debatable. There seems to be a prevailing opinion that if diet alone is not effectual, its administration combined with drugs will accomplish no more than the drugs alone. To test this scientifically in our case the diet should have been stopped as soon as phenobarbital was started. However, in an obscure disorder one hesitates to change slightly even the most illogical treatment which is producing results.

The psychological effects of environment, suggestion, etc., in controlling convulsive disorders could demand extensive discussion. We have all seen convulsions of childhood altered or stopped without specific treatment upon placing the patient in a hospital or new home. Anything we can do toward improving the mental and emotional status of a child who has had convulsions should be additional assurance of future health. It appears logical that the more the attacks are colored or precipitated by psychological causes, the more necessary is treatment of this kind. It was thoroughly carried out in the girl whose case I have presented.

Because of the many factors to be controlled in this type of illness, the prognosis must always be more conjectural than in simpler conditions.

Summary

The case of an adolescent girl who was relieved of uncontrollable laughing spells and sporadic convulsions is reported to illustrate the practical handling of some problems of nervous and mental disease in childhood.

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CONTRACTION OF THE COLOR FIELDS IN NEUROSYPHILIS*

By WILLIAM M. MUNCY, M.D.
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About a year ago I began a more routine and thorough ophthalmic examination of all cases of neurosyphilis entering the Psychopathic department of the Charles V. Chapin Hospital. When possible they were examined before having malarial inoculation; in the interval between the inoculation and the administration of tryparsamide and later on leaving the Hospital. The main object in doing this was to find if there was present any ophthalmic condition that would forecast a probable deleterious ocular reaction from the use of tryparsamide. To date we have a negative report as the only case in which there was considerable ocular reaction had previous to the tryparsamide treatment normal eyes in every particular with the exception of a markedly contracted color fields. However as this condition of contracted chromatic fields was found in all cases having a plus four spinal fluid Wassermann, it could not be considered as counter-indicating its use.

I wonder if this consistency of contraction of the color fields was not due to the technique used. The examinations were made on a tangent screen at one meter distance. That we might test cases at any time, it was lighted by four 100 watt blue daylight bulbs which with reflectors were placed equidistant on the wall nine feet from the screen. This gave an even illumination of seven foot-candles. One degree green, red and blue test objects of Heidelberg flower paper on neutral gray background was used. Nonpathological persons were tested with daylight of seven foot-candles and

found to check with the blue daylight electric illumination.

I now present twelve cases of general paresis in which the color fields are all contracted within 10 degree limits, some being even within 5 degrees. This is most striking as with but three exceptions the achromatic form fields are normal. Five other cases with four plus spinal Wassermann had the contraction within pathological limits. Two cases that are now blood positive with spinal negative which still retain very small chromatic fields. These were found to have had four plus spinal in their past histories. Two cases of latent congenital syphilis with blood four plus but spinal negative (Wassermann fast). In these the color fields are contracted well within pathological limits though their form fields and visual acuity are normal. Two cases of general paresis with four plus spinal fluid having normal achromatic fields where the color fields though contracted to ten degrees and smaller were enlarged to normal limits under malarial and tryparsamide treatment. One case with four plus blood Wassermann and negative spinal had normal form fields but chromatic fields contracted to ten degrees or less when taken in April. On the 28th of May after malarial treatment this case was found to have normal color fields.

Then follows eighteen cases from the outpatient department with blood positive Wassermann which are supposedly negative spinal though a number have never had a serological examination. Fifteen were found to have normal color fields. Two were somewhat contracted in both eyes and one in one eye only. We are endeavoring to have spinal done on these and at least watch their future development.

Lastly one alcoholic depressant case with considerable mental symptoms that was found to have four plus blood Wassermann with negative spinal. Though the vision was normal and the achromatic fields at extreme limits, his color fields were so contracted to the very center as to make it almost impossible to obtain a variation in the size of the blue, red and green areas. Of course this like all other patients had had a previous color blind test.

The number of cases examined and the period of observation has not as yet been extensive enough to draw any but tentative conclusions as to the value of these findings. At present it tends to indicate that contraction of the color fields in blood syphilis is a presumptive sign of beginning neurosyphilis.

*Presented before the Rhode Island Society of Neurology and Psychiatry, December 10, 1934.

GIARDIASIS: A CLINICAL STUDY*

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and

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Although the protozoan duodenal parasite, *Giardia Lamblia*, has been known and studied for probably three-quarters of a century, its importance in clinical gastro-enterology has remained a controversial problem.

According to Dobell,¹ it was Leeuwenhoek who first described this intestinal protozoan in man. He apparently discovered the parasite in his own stools. However, as Lambl rediscovered the organism in 1859 and discussed it at length, it is generally conceded that the proper scientific name of this intestinal protozoan is *Giardia Lamblia*.

Parasitologists and clinicians are still in doubt as to the pathogenicity of *Giardia*. Certain investigators believe that Giardiasis in man may be the etiologic factor in certain cases of intractable diarrhea and chronic biliary tract disease; while others persist in the belief that this organism is a non-pathogenic, commensal parasite of man.

We propose to briefly summarize the literature concerned with Giardiasis in man and to discuss four instances of infection with this organism as observed by us at the Gastro-intestinal Clinic of the Charles V. Chapin Hospital.

It is certain that different species of *Giardia* exist and may be found as parasites infecting man, dogs, cats, rabbits, rats and mice. Although various species have been identified, they all have certain morphologic features in common. The *Giardia Lamblia* of man is a true bilaterally symmetrical and binucleate flagellate, possessing eight flagella. The two nuclei are situated at the anterior pole in a ventral cup-shaped depression which constitutes the hold-fast organ. The body is silvery colored and actively motile. In its general appearance it may be likened to a pear split into two parts along its long axis.

By means of the hold-fast organ the parasite attaches itself by suction to the epithelial cells of the duodenum or jejunum. It may be found in the crypts of Lieberkuhn, or lashing about in the secre-

tions of the lumen. The parasite has no known means of actually penetrating the mucosa. The organism receives its nutrition by osmotic processes. All species of *Giardia* inhabit the small intestine, chiefly the duodenum and jejunum, of their host. The flagellates undergo encystment at some period of their life history. Cysts and vegetative forms may be found in the stool, but the active organisms are more easily recovered and studied in the biliary aspirates obtained by duodenal-biliary drainage.

The manner by which man becomes infected with *Giardia* has given rise to much speculation. It was thought for a time that rats and mice might act as intermediary hosts or carriers, but the experimental



SINGLE *GIARDIA LAMBLIA*
(Oil immersion)

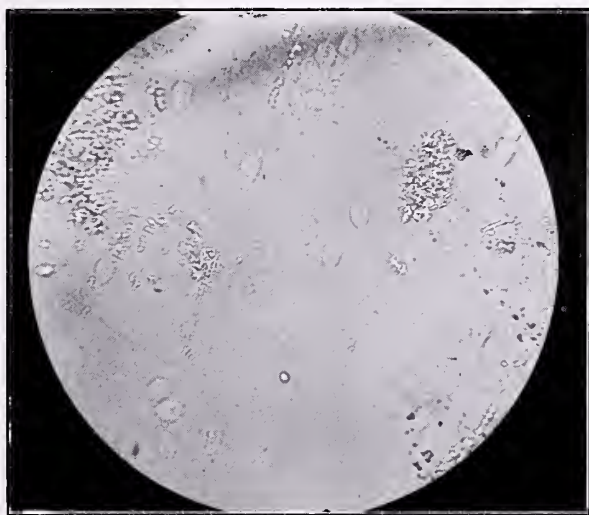
work of Simon² apparently proves human Giardiasis to be of "human origin." Man may ingest the cysts directly by contamination with feces, food and water; or indirectly as demonstrated by Wenyon and O'Conner,³ through the agency of the house fly which in turn may feed upon excreta containing cysts and then deposit them in its dejecta on food or in drinking water. Therefore the observance of proper hygienic measures may prevent infection with *Giardia*.

Until recently Giardiasis has generally been considered a parasitic infestation of only tropical or subtropical zones. Little was known of its frequency and widespread distribution until the completion of an investigation, carried on during and after the World War, by European and American protozoologists. According to Lyon,⁴ Hemmeter

*From the Clinic of Gastro-enterology, Charles V. Chapin Hospital. Read before the Providence Medical Association September 3d, 1934.

observed and put on record the first American case infected with *Giardia*. Since then Lyon,⁴ Smithies,⁵ Kantor,⁶ Hollander,⁷ Boeck,⁸ and others have described similar instances of *Giardiasis* occurring in this country. In general, the incidence of infection has been found to vary with the environment and its sanitation. Children are more frequently infected than adults.

The question of the pathogenicity of *Giardia*, as previously stated, has given rise to much discussion. Much of the trench dysentery encountered during the World War has been attributed to an infection with this parasite. Fantham and Porter⁹ found 187 cases of *Giardiasis* among soldiers invalided to England from Gallipoli because of intractable diar-



MULTIPLE GIARDIA
(High Dry)

rhea. Woodcock and Penfold,¹⁰ Kennedy and Rosewarne,¹¹ also report many similar instances of trench dysentery in which *Giardia* were the only organisms found. *Giardiasis* has also been assumed by certain clinicians to be the cause of the "summer diarrhea" or enterocolitis of children.

However, Boeck,⁸ in his excellent critical review of the subject, points out that statistical studies indicate that diarrhea does not occur any more frequently in those persons known to harbor *Giardia* than among uninfected persons. He believes that there is little in the way of scientific proof that indicates *Giardia Lamblia* of itself causes diarrhea in either children or adults, except, perhaps in a few obscure and sporadic cases. He does, however, concede to the view that *Giardia* may aggravate an already existing infection of bacterial origin.

Certain clinicians, chiefly Lyon,⁴ Hollander,⁷ Kantor,⁶ and Smithies,⁵ believe that *Giardiasis* may occasionally be related to the causation of gall bladder disease. It is believed that the flagellates may either initiate the disease process in the gall bladder or bile ducts by their migration from the duodenum, or that they may play the part of a secondary invader and prolong an already existing cholecystitis of probable bacterial origin. However, this most interesting speculation remains as yet unproved. Smithies,¹² in discussing Hemmeter's paper in 1920, stated that he had observed one instance where viable *Giardia* had been found in the contents of a gall bladder removed at operation. Lyon⁴ takes exception to this statement and believes that not a single authentic instance of *Giardia* being found in the gall bladder has as yet been specifically reported. He does believe, however, that *Giardia* are of clinical importance and in adult patients are most often found associated with disease of the gall bladder, bile ducts and duodenum. Golob¹³ reports an interesting observation. He has observed two cases of cholecystitis simulating cholelithiasis, and one instance of catarrhal jaundice, which he believes were directly related to *Giardiasis*.

Our experience with this parasite may be summarized in the following brief case reports.

CASE I. A man of 28 years complained of diarrhea. For the past 12 years he had been passing from five to eight liquid stools a day. The stools frequently contained blood, pus and mucus. There was only an occasional feeling of abdominal discomfort. His weight varied but little. He has continued to remain in a good physical condition in spite of the long standing troublesome diarrhea. Sigmoidoscopic examination revealed an acutely inflamed, edematous, ulcerated mucous membrane. Stool examinations and smears obtained from the ulcerating lesions have been repeatedly negative for amoeba. Bacteriological and serological studies for the dysentery organisms have been negative. A barium enema revealed the typical stiffening, narrowing and shortening of the distal colon characteristic of non-specific ulcerative colitis. Special study of the stools did reveal innumerable active *Giardia*. However, we were unable to recover the parasite in the biliary aspirates. Emetine hydrochloride and treparsol plus the usual therapy for ulcerative colitis was prescribed. To date the patient has had but one to three formed stools a day. As recurrence is the rule in ulcerative colitis, we do

not feel justified in claiming any more than a temporary symptomatic relief for this patient.

CASES II and III present similar symptoms and laboratory findings and may therefore be discussed together. The symptoms common to both patients were pyrosis, sour eructations, belching and gaseous distension, anorexia, and the frequent occurrence of a dull pain beneath the right costal border. Cholecystography revealed an inadequate filling of the gall bladder, diminished density of the shadow and incomplete evacuation following a fatty meal. Biliary drainages revealed the presence of innumerable viable *Giardia* in a poorly concentrated gall bladder fraction. Arsphenamine was administered intravenously but had to be discontinued because of intolerance to the drug. Symptomatic relief has been obtained by the use of alkalie and frequent biliary drainage and transduodenal lavage.

CASE IV presents an interesting clinical problem. An Armenian man of 65 years consulted the clinic for relief of the following symptoms—frequent attacks of severe epigastric pain which radiated beneath the right costal border and to the base of the right scapulae. Pain was sometimes associated with vomiting. He had occasional chills but no jaundice. He belched considerable gas, had frequent pyrosis and persistent anorexia. He stated that he had been operated for gall bladder disease some fourteen years ago. As he does not recall the name of the hospital we have been unable to obtain additional information regarding the type of operation or pathological findings. Upon biliary drainage a well concentrated gall bladder fraction containing innumerable viable *Giardia*, cholesterine crystals and calcium bilirubinate pigment was obtained. Repeated cholecystographic studies have failed to visualize a gall bladder. We must assume, because of the character of the laboratory findings, that this patient has either a gall bladder still sufficiently normal to fill, concentrate and evacuate bile, and probably containing cholesterine calculi; or that a dilated bile duct exists and is functioning as a gall bladder. As the patient refuses to undergo a second operation, we have been performing frequent biliary drainage and transduodenal lavage with saline. The patient has remained symptom free, but *Giardia* persists.

There is little to be said concerning the treatment of *Giardiasis*. Many therapeutic agents have been employed, and among the most frequently used are

bismuth salicylate, thymol, stovarsal, naphthol, ichthyol, dimol, and arsphenamine. Many investigators believe arsphenamine to be the most effective drug employed to date. However, it is highly probable that as yet no specific treatment has been discovered. It is generally agreed that *Giardia Lamblia* is by comparison with other parasites remarkably resistant to all forms of therapy. Owing to the fact that relapses are frequent, caution should be exercised in claiming an actual cure of *Giardiasis*.

In conclusion, it may be said that there appears to be no specific symptomatology of *Giardia* infestation. *Giardiasis* may simulate diseases of the gall bladder, bile ducts, duodenum and colon. It is difficult for us to believe that *Giardia Lamblia* of itself gave rise to the diarrhea and cholecystitis in our series of cases. On the other hand, it is impossible for us to regard the presence of *Giardia* as an unimportant, coincidental clinical finding. It is significant that in more than five hundred biliary drainages we have found *Giardia* in only four instances, and in each case a definite pathological condition has been present.

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LETTERS TO THE EDITOR

TO THE EDITOR:

The following letter from the Department of Commerce in connection with the recent survey of net incomes of the doctors in Rhode Island for the years 1932-1933 may be of interest to the Fellows who co-operated so willingly in making the survey as complete as it was.

"Thank you very much for your letter of October 24 and the figures showing the loss in net income of physicians and surgeons in Rhode Island in 1933 as compared with 1932.

"The thoroughness with which you have made this survey for us will add materially to the accuracy of our estimate and your assistance in this matter is sincerely appreciated.

Very truly yours,

ROBERT F. MARTIN,
*Senior Economic Analyst,
Division of Economic Research."*

I am sure that all will be interested to learn that the survey showing the average loss in the net income of physicians and surgeons in Rhode Island in 1933 as compared with 1932 was 21.7%. Those who reported were, of course, well aware of their own loss in income during this period, and may get a measure of comfort from the above figures that they are not alone in this respect."

Yours truly,

J. W. LEECH, *Secretary.*

NEWS ITEMS

We note with satisfaction that at the recent annual meeting of the New England Heart Association, Dr. Frank T. Fulton of Providence was honored by re-election to the office of President of this body.

SOCIETIES

RHODE ISLAND MEDICAL SOCIETY

The regular quarterly meeting of the Rhode Island Medical Society was held at the Medical Library on Thursday, Dec. 6, 1934, at 4:00 P. M., and was called to order by the President, Dr. Albert H. Miller.

The minutes of the September meeting, and of the November meeting of the Council, and of the

House of Delegates, were read by the Secretary and adopted.

The President made the following appointments:

Member at Large of the Board of Trustees of the Rhode Island Medical Library

Dr. Michael H. Scanlon, Westerly, R. I.

Anniversary Chairman

Dr. Alexander M. Burgess, Providence, R. I.

Delegates to the New England State Medical Societies' Annual Meetings

Maine—Dr. Geo. J. Howe, Central Falls; Dr. Chas. L. Phillips, E. Greenwich.

New Hampshire—Dr. Wm. B. Cutts, Providence; Dr. Philip Batchelder, Providence.

Vermont—Dr. Herman L. Emidy, Woonsocket; Dr. Maurice Adelman, Providence.

Massachusetts—Dr. Geo. S. Mathews, Providence; Dr. Harry C. Messinger, Providence.

Connecticut—Dr. Walter J. Grenolds, Westerly; Dr. Linwood H. Johnson, Westerly.

The President announced the death of the following Fellows during the year:

Marcus F. Wheatland, Newport, died Aug. 16, 1934.

Rowland R. Robinson, Wakefield, died Aug. 26, 1934.

Eugene P. King, Providence, died Sept. 6, 1934.

Alfred W. Love, Providence, died Nov. 16, 1934.

Herbert S. Abel, Providence, died Dec. 3, 1934.

Chas. D. Easton, New York (Honorary member), died Oct. 4, 1934.

It was voted to refer these names to the Committee on Necrology for action at the June meeting.

The following letter from the Committee on Cancer was read by the secretary, and it was voted to accept the same:

"Report of Committee on Cancer of the Rhode Island Medical Society

"There have been two meetings of the Committee; the last meeting was held December 4, 1934, at which seven members were present.

After considerable discussion and consideration of Cancer programs in adjoining states, it was voted to recommend to the Society the establishment of a Bureau of Speakers on Cancer for the education of the lay public; this bureau is to be made up of men who are interested in the cancer problem and who are willing to hold themselves in readiness to address lay organizations as requested.

It is suggested that the members of this bureau be appointed by this Committee.

"The Committee is also considering the advisability of the establishment of cancer diagnostic clinics in various parts of the state.

For the Committee,

GEORGE W. WATERMAN, M.D.,

Secretary."

RHODE ISLAND MEDICAL SOCIETY MEETING, DECEMBER 6, 1934

The following program was presented:

1. "Report of Delegates to New Hampshire State Medical Society," Herman A. Lawson and Clinton S. Westcott.

2. "Tenth Clinical Congress of Connecticut State Medical Society," D. Frank Gray, Charles F. Deacon and George S. Mathews.

3. "New Economic Problems for the Lying-In Hospital," Harmon P. B. Jordan, Supt. of Providence Lying-In Hospital. Discussion by Dr. Brackett.

4. "Current Trends in Pharmaceutical Education," W. Henry Rivard, Dean of R. I. College of Pharmacy. Discussion by Dr. Chas. L. Farrell, Dr. J. S. Kelley, and Mr. Rivard.

5. "First Public Demonstration of Anesthesia," motion picture enacted by members of staff of Massachusetts General Hospital.

It was voted that a vote of thanks be extended to Dr. George H. Bigelow, Director of the Massachusetts General Hospital, for the loan of the above film.

After adjournment a collation was served.

Respectfully submitted,

J. W. LEECH, M.D.,

Secretary.

RHODE ISLAND MEDICAL SOCIETY

Budget—1935

Collations and Annual Dinner	\$ 750 00
Expenses of Secretary	75 00
Printing and postage	125 00
Fuel	600 00
Gas	45 00
Electricity	85 00
Telephone	125 00
City water	15 00
House supplies and expenses	450 00
House repairs	300 00
Janitor	720 00
Rhode Island Medical Journal	400 00
Safe Deposit	7 00
Treasurer's Bond	25 00
Librarian	1,660 00
Delegate to American Medical Association	100 00
Medical Library Association Dues	10 00
	<hr/>
	\$5,492 00

Income for 1935

Annual dues	\$4,640 00
Interest from Harris Fund	206 00
Interest from Morgan Fund	22 50
Providence Medical Association	450 00
Use of Building	50 00
	<hr/>
	\$5,368 50
Balance in Bank November 1, 1934	1,038 70
	<hr/>
	\$6,407 20

HARRIS FUND

Mortgage Security Corp. of America	
Central Arizona Light & Power Co.	\$ 50 00
General Public Utilities Co.	156 00
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	\$206 00

JAMES R. MORGAN FUND

Missouri Power & Light Co.	\$22 50
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J. W. C. ELY FUND

Southern California Edison Co.	\$50 00
Mechanics National Bank, cut ½ Jan. 1933.	
Passed thereafter	
	<hr/>
	\$50 00

FRANK L. DAY FUND

Canadian National Railway	\$135 00
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HERBERT TERRY FUND

Missouri Public Service Co.	\$100 00
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JAMES H. DAVENPORT FUND

Monongahela West Penn Pub. Service Co.	\$55 00
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PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Charles F. Gormly, Monday evening, December 3, 1934, at 8:50 o'clock. Records of the last meeting were read and approved.

The standing Committee having approved their applications, the following were elected to membership: Ralph Joseph Petrucci, James Howland Prior, Arthur Allison Wills, Jr., Robert Kemp Wilson and John Anthony Mellone.

Nomination of Officers

In accordance with Article I, Section 6, of the By-Laws, the Standing Committee made the following nominations for officers and committees for the year 1935.

<i>For President</i>	William P. Buffum, M.D.
<i>For Vice-President</i>	William S. Streker, M.D.
<i>For Secretary</i>	Peter Pineo Chase, M.D.
<i>For Treasurer</i>	Charles F. Deacon, M.D.

For Member of the Standing Committee for five years—Charles F. Gormly, M.D.

For Trustee of the Rhode Island Medical Library for one year—Arthur H. Ruggles, M.D.

For Reading Room Committee—George S. Mathews, M.D., Elihu Wing, M.D., Guy W. Wells, M.D.

For Delegates to the House of Delegates of the Rhode Island Medical Society—P. C. Cook, M.D., R. R. Baldridge, M.D., C. C. Dustin, M.D., E. A. Sharp, M.D., J. G. Walsh, M.D., C. H. Woodmansee, M.D., R. H. Whitmarsh, M.D., V. J. Oddo, M.D., W. Hindle, M.D., C. W. Skelton, M.D., P. P. Chase, M.D., L. C. Happ, M.D., W. C. Gordon, M.D., W. M. Muncy, M.D., J. J. McCaffrey, M.D., P. Conca, M.D., C. B. Leech, M.D., A. J. Pedorella, M.D., J. M. Beardsley, M.D., C. R. Doten, M.D., H. J. Gallagher, M.D., N. A. Bolo-tow, M.D., J. Franklin, M.D., C. Bradley, M.D.

For Councilor for two years—Lucius C. Kingman.

Dr. Buffum, for the Unemployment Relief Committee, reported telling how a few men were abusing the scheme by a superfluity of visits so that he felt there was danger of the whole thing falling through.

It having been voted at the last meeting that the president appoint for one year a Public Health Clinic of five committees preferably from outside the city to co-operate with a similar committee from the Rhode Island Medical Society, the following names were announced: G. Raymond Fox, Chairman, James P. Nourie, Howard F. Keefe, Arcadie Giura and Antonio F. D'Angelo.

The President appointed Drs. Howard E. Blanchard and W. H. Palmer as an obituary committee for Dr. Love.

Dr. Joseph E. Kerney reported a case of Seminal Vesicle stone removed at operation.

Dr. John Langdon reported a case of Lipoid Cell Pneumonia and Dr. Ezra A. Sharp reported a case of Acute Hemorrhagic Encephalitis demonstrated at autopsy. Dr. B. Earl Clarke discussed this case.

The paper of the evening was by Dr. George Blumer, Professor of Surgery, Yale University, on the "Importance of Observation and Induction in Diagnosis with some remarks on Errors in Diagnosis."

Starting with a happy reference to Dr. Watson, the friend of Sherlock Holmes, and an outstanding example of the practitioner using neither observation or induction, the reader cited interesting examples of medical men using Holmes methods. He felt that observation could be cultivated and that proper induction does not necessarily follow from careful observation. He then cited numerous cases illustrating the difficulties encountered in using these methods.

The meeting adjourned at 10:25 P. M.

Attendance 220.

Collation followed.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

December 7, 1934.

The Department of Public Aid, with the approval of the Unemployment Relief Committee of the Providence Medical Association, has made the following changes in the procedure of medical care of families that are receiving relief. These changes are in line with the rules of other states as outlined in the current Bulletin of the A. M. A. and other publications.

1. The patient is to send a message to the station of the Department of Public Aid. After an investigation, if necessary, this Department telephones to the doctor and mails the authorization.
2. An emergency call at night from 5 P. M. to 9 A. M. and on holidays may go direct from the patient to the physician, but only one visit is allowed on this call. An authorization must be obtained by the patient and received by the doctor by telephone before the next visit.
3. Authorizations are to be for a maximum of ten visits during two weeks as at present.
4. Authorizations are to cover one patient only. For a second patient in the same family a new authorization must be obtained.

UNEMPLOYMENT RELIEF COMMITTEE

Rocco Abbate, M.D.

Bertram H. Buxton, M.D.

James W. Leech, M.D.

William S. Streker, M.D.

William P. Buffum, M.D., *Chairman*

ANNOUNCEMENT OF MEETING OF NEW ENGLAND HEART ASSOCIATION

The meetings of the New England Heart Association for the coming winter will be held, as last year, at various hospitals. The first meeting was at the Massachusetts General Hospital on Monday evening, October 29, at 8:15 o'clock.

Subsequent meetings will be as follows: November 26, 1934, Boston City Hospital; January 7, 1935, Peter Bent Brigham Hospital; January 28, 1935, Beth Israel Hospital; February 25, 1935, Children's Hospital; March 25, 1935, Massachusetts Memorial Hospital; April 29, 1935, House of the Good Samaritan; May 27, 1935, Rhode Island Hospital.

The meetings begin promptly at 8:15 and as a rule adjourn about 10:00.

All members of the New England Heart Association and interested physicians are invited to attend.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

BOOK REVIEWS

MANUAL OF THE DISEASES OF THE EYE, by Charles H. May, M.D. Publishers, Wm. Wood & Co., Baltimore.

May's Ophthalmology still retains in its 25th year its position as the ophthalmological bible of the student and general practitioner, and rightly so, as it presents the essentials without over-burdening the text with details which only the ophthalmologist demands. The new edition has followed this desirable idea, but has been enriched by many admirable colored plates of external diseases and fundus pathology which should prove of great value to the general practitioner who today appreciates the

value of fundus examinations and is more and more availing himself of this aid in diagnosis of systemic disease.

INDUSTRIAL TOXICOLOGY, by Alice Hamilton, M.D. Harper's Medical Monographs, p. 271. Bibliography, Index, Subject Index.

This little book continues to keep the name of Doctor Hamilton in the high position which she has placed it. While it does not include all poisons, it does include those for which a book of this nature is needed.

The section on lead poisoning is especially interesting, as it shows many angles which the physician is apt to neglect.

The Bibliography is very valuable, especially to one who would be interested in research in any of the problems taken up. The description of the various symptoms for each type of poisoning and the treatment suggested by various researches are arranged under appropriate headings: Metals; Asphyxiants; Petroleum Derivatives and the like. It must be constantly kept in mind, however, that this monograph is not an encyclopedia, although one will be tempted to use it as such.

This book is of value to the general practitioner and internist as cases of industrial poisoning may be acquired outside of industry.

MISCELLANEOUS

HIGH FREQUENCY CURRENTS IN PERFORMING BIOPSIES

Jacques P. Guequierre and Fred D. Weidman, Philadelphia (*Journal A. M. A.*, Dec. 1, 1934), point out that the objections of the pathologist to the use of coagulating currents can be overcome largely by adhering to the cutting current. The method is not infallible, owing to such factors as muscular twitch, an unsteady hand or an anatomic location such as the face, which limits the removal to a very small specimen. Barring these conditions the readiness of the apparatus, the bloodlessness, the insensitiveness to postoperative pain and the psychologic effect on the patient all contribute to the securing of a greater number of biopsies, which are so sorely needed for the advance of dermatology in general, to say nothing of the assistance that accrues in confirming the diagnosis.



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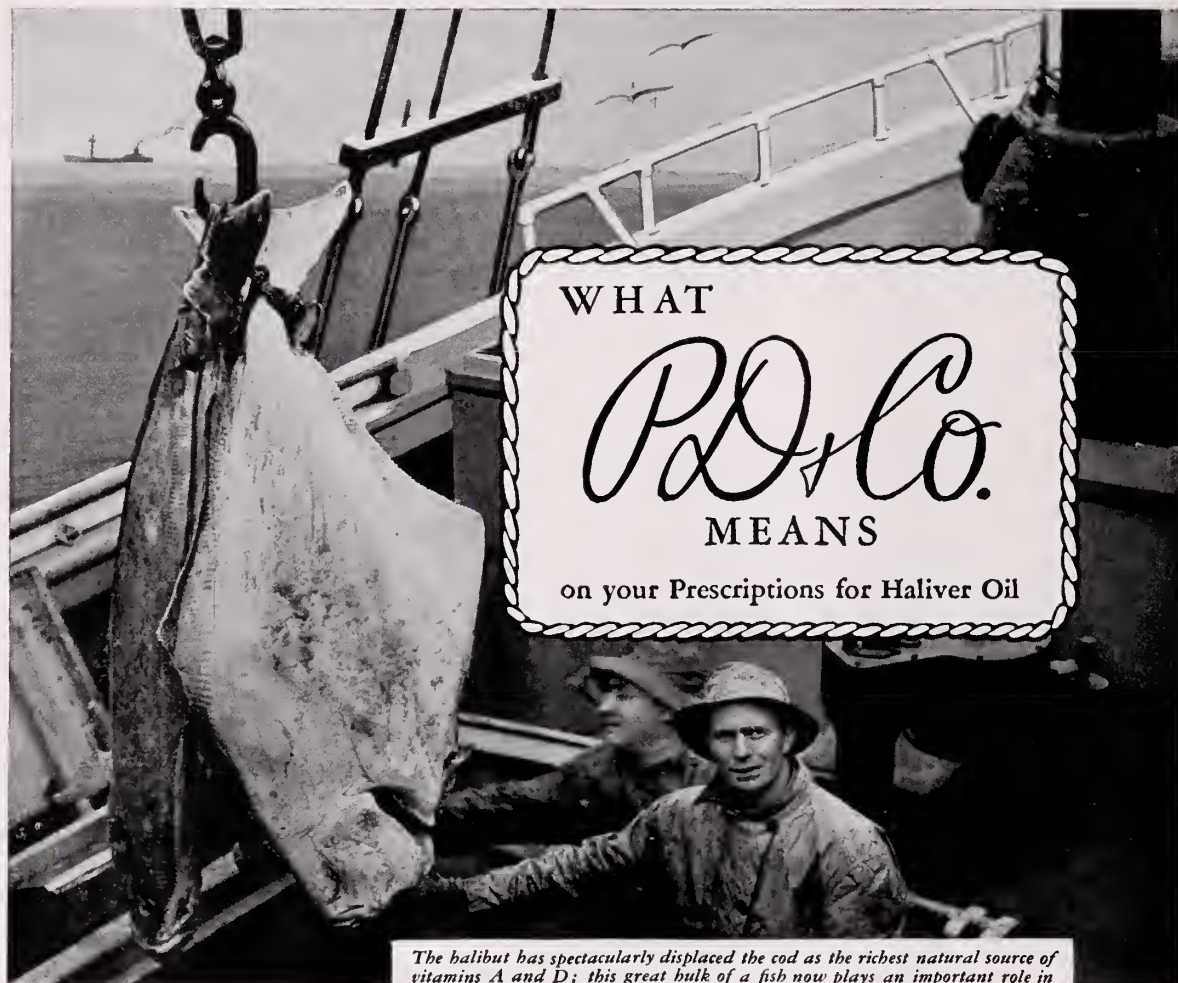
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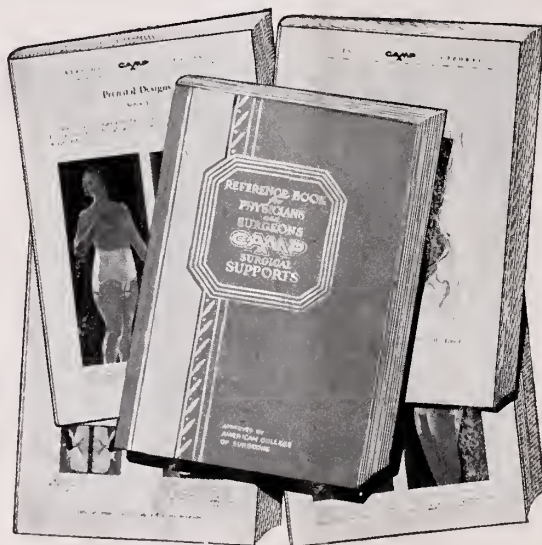
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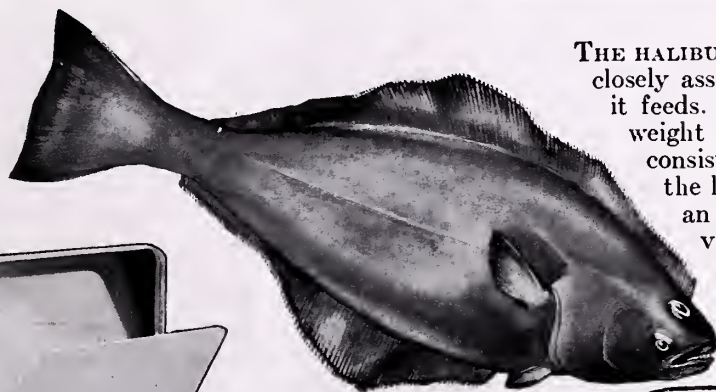
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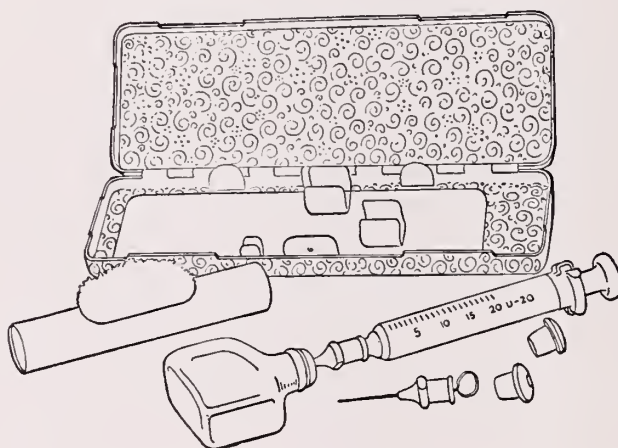
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Issued Monthly under the direction of the Publication Committee

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NUMBER 2

Whole No. 305

PROVIDENCE, R. I., FEBRUARY, 1935

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ORIGINAL ARTICLES

THE PREVENTION OF MAL-PRACTICE SUITS*

*Address by the Retiring President of the
Providence Medical Association*

By DR. CHARLES F. GORMLY
221 THAYER STREET, PROVIDENCE, R. I.

*To the Members of the
Providence Medical Association:*

It now becomes my privilege and duty to address you as the retiring President of this Association.

In the selection of a topic for this address I have been mindful of that section of the by-laws which prescribes that "The President shall deliver before the Association at the Annual Meeting an address with special reference to the work and needs of the Association."

There can be no doubt that the framers of these by-laws sensed the necessity of a sort of stock-taking at least once a year.

During the past year we have made an effort to consider some of the interests of organized medicine other than purely scientific papers and we have in a feeble way offered an opportunity for a free discussion of these vexing problems.

It is my earnest hope that under the wise discretion of the Public Relations Committee there may be a continuing opportunity for this type of discussion. With the tremendously important changes in the practice of medicine that confront us in the almost immediate future we need the enlightenment and information that these meetings afford.

I would like to have discussed with you some of these important problems, such as sickness insurance, medical emergency relief, regimentations of the doctor and what not, but I feel that I know so little of these things that I am not competent to present them. However, there is a subject of which I do possess some special knowledge that may well

be included in this wise by-law and it is on this subject, "The Prevention of Mal-Practice Suits," that I propose to address you.

History

There is much of interest in the history of mal-practice suits, but it is a very comprehensive subject. It is of interest to note in passing, however, that the history of mal-practice, compared with the history of medicine, is in its infancy.

The first case of which I can find a record was that of "Slater versus Baker and Stapleton" in England in 1767. This was an action that arose over the treatment of a fracture of both bones of the leg and in which a verdict of £500 was received by the plaintiff. Previous to this time, these actions were usually brought as a criminal charge and for assault.

The first American case was in 1794 in Connecticut and the defendant, after the suit was filed, made some sort of an agreement with the plaintiff that the bill for an operation on his wife, who had died, would offset any claims for personal injuries. The jury did not agree with the defendant and gave the plaintiff £40 and cost.

Abraham Lincoln and his partner, Williot B. Herndon, defended a physician in a mal-practice suit entitled "Ritchey vs. West" in the Adams County Circuit Court of Illinois, which was appealed to the Illinois Supreme Court in 1860. The defendant was defeated.

Statistics

It is quite obvious that there is a great difficulty in getting statistics of value in a study of this problem. It is true here, as in most communities, that a threatened mal-practice suit is considered somewhat derogatory and to be treated with the strictest confidence.

The best available figures are from a recent study by Dr. Halbert G. Stetson of Greenfield, Massachusetts, who was president of the Massachusetts Medical Society, 1931-1933. He approximates the number of suits brought against physicians in the United States in the past five years as 20,000 and with nearly 1,000 occurring in Massachusetts alone

*Delivered at the meeting of the Providence Medical Association, January 7, 1934.

during that period. His careful study and investigation developed the fact that there are at least 350 cases awaiting disposition in Massachusetts at the present time.

I have made some effort to determine how many cases occur in Rhode Island by inquiring from the local claims departments of those insurance companies who write this type of insurance.

While admittedly an inaccurate figure, the best guess seems to be that about ten to a dozen threatened suits arise with not more than one or two going to actual litigation each year.

There is another aspect to this question of numbers of cases and that is the fact that once a suit is actually started in this state there is no way of removing it from the courts except by some legal disposition.

Just how many such suits are now in existence in the Rhode Island courts no body seems to know. I personally know of many and of one that is eighteen years old. I recall still another in which both the plaintiff and defending doctor have been dead for several years, and yet the administrators of the plaintiff's estate may, whenever they choose, re-awaken this quiescent action and take their pound of flesh from what, if any, estate the doctor may have left.

I would not like to leave the mentioning of this case without using it to make the point that these illegitimate cases (and this is an illegitimate case) should be prevented and never allowed to go to suit.

The usual way to dispose of a case of this sort is for the administrator of the doctor's estate to make some sort of a settlement so that the deceased doctor's estate may be closed.

Definition

It is obvious from even a casual contact with this work that few lawyers and physicians and practically no lay people have a clear conception of the conditions under which a physician is liable for negligence.

Liability under this branch of negligence is called mal-practice, which simply means bad practice, and it may be either wilful neglect or ignorance.

Negligence as it applies to a physician has been defined as "In doing something he shouldn't do or in neglecting something he should have done or his failure to use the required skill and care in the treatment of a patient that is common to practice in the same locality at the same time."

While there is always the legal consideration of criminal mal-practice, this has very little interest for most of us. Our concern is with civil mal-practice. The relationship of physician or surgeon to a patient is one of contract, either expressed or implied, and while the general rules as to the construction and validity or legality of contracts apply, practically no suits are brought on a breach of contract basis. They are almost universally predicated on a basis of negligence.

Referring again to the basis for suits, it has been my experience that lawyers like laymen generally regard a bad result as negligence, and physicians themselves are also guilty of this misconception. Some authorities estimate that three-quarters of all cases are started on this wrong interpretation of the law. In spite of knowledge, skill and excellent care, mistakes will occur and errors of judgment will be made which are not in any sense a basis for court action.

Also it is to be remembered that there is no cause for an action in negligence unless the negligence complained of is the proximate cause of the injury claimed. Nevertheless, if a clever lawyer succeeds in getting any mal-practice suit to a jury, it is not hard for him to convince the average jury that the bad result was caused by a proximate negligent act of the doctor.

In this same connection it is to be remembered that you are only required to possess ordinary skill and not extraordinary skill, of the highest degree possible. However, more is expected of a person who sets himself up as a specialist because professing to possess more than ordinary skill the patient has a right to expect it in his treatment. The question of when a physician becomes a specialist is not one of law, but of fact, and it becomes a jury question to determine this fact.

Another important consideration is in reference to locality. The rule is that it applies to the place where the physician is located and not where the patient is treated. A physician from the city or medical center going into the country must use the same skill, diligence and care as doctors do in his locality. It must be remembered, also, that because the services are gratuitous there is no lessening in the degree of liability.

Causes

In practically every case that has ever come under my personal observation, there has been as a fundamental basis the indiscreet criticism of some fellow

practitioner. Occasionally, it goes far beyond this and amounts to malicious detraction. There must always be this criticism or belittling on the part of someone. This custom or habit of making remarks about other doctors and their poor results is almost universal. As Dr. Weston says in his investigation of these cases, you will invariably find that some doctor, for some reason, has made a remark substantially as follows—"Who has been taking care of this case?" or "I am so sorry I did not have an opportunity to attend this case in the first place" or "I am afraid your case has gotten into such shape now that it will be impossible for me to remedy your trouble. Of course, the result might have been entirely different if you had come to me in the first place" or "Dr. Blank ought to be ashamed of himself, to let you get into this condition."

To be as fair to these doctors as is possible, their remarks can be considered as thoughtless, but there are times when they have been made with deliberate intent to provoke suits for damages. That envy and spite are factors in these disparaging remarks there can be no question. Do not jump at the conclusion that a bad result on the part of your fellow practitioner is something that you could have prevented. Bear in mind that you are looking backwards and that there were many difficulties in the handling of a case that you could know nothing of. Be sure that you have a correct appreciation of all of the conditions and be self-critical.

Among other frequent causes are attempts to avoid payment of a just bill.

Many suits are just nuisance suits threatened or even filed in the hope of making a little easy money. One authority even goes so far as to say that 75% of these suits are blackmail. The most frequent source of these cases are bones and particularly fractures, secondly burns, either from X-rays or from therapeutic lamps.

There is not time now to discuss all these factors, the necessity for being prepared to defend yourself against these suits, the desirability of careful records, particularly the X-ray record. In this connection I would like to stress a condition which I believe will some day prove troublesome and that is the destroying of X-ray films after two or three years. How are you going to satisfy a jury by telling them that the X-ray films which they expect to see have been destroyed!

Conclusion

This, then, brings us to the important aspect of this address: the prevention of mal-practice suits. It is an urgent problem at the present time. It is a problem of such importance that throughout the entire country many fine medical minds are devoting time and earnest study in its consideration. Wherever figures are available it is clear that these suits in mal-practice are tremendously on the increase. Many factors are contributing to this; some of these are within and some without our own profession. No physician can congratulate himself that he is immune. Unfortunately, it is often the doctor of the highest type, both in skill and character, that is sued.

Now, then, having in mind the preventive value of avoiding gossip remarks about other doctors' results, the belittling or vicious detraction for self-aggrandizement, the value of well kept records, of written permission for operations and all these other familiar factors, I believe that the most important single consideration in this work of prevention is to give an immediate consideration to these suits or threatened suits, be they legitimate or illegitimate, before a competent and authoritative committee of the organized profession; such a committee to be made up of the elders of the association, mellowed and tolerant not only with fellow practitioners but with the laity as well. It is my belief and it has been the experience in other communities that a very large percentage of these cases, when brought to the attention of such a committee of highly respected practitioners, completely peter out. No self-respecting lawyer, when he learns that his claim against a doctor is an illegitimate one, would care to exhibit himself before such a committee. Fake cases will promptly disappear, nuisance cases and blackmail cases will cease to exist. The actual legitimate mal-practice case will be evaluated and recommendations toward seeking its disposition made. Lawyers will value this feature and seek the advice of this committee rather than getting curbstone advice from some doctor who cannot be possessed of the necessary facts upon which to base his judgment.

To this end, I propose the following amendment to the by-laws of this association, believing that it will serve a very necessary need, and I am recommending that a vote on this amendment be held over until the next meeting and that a copy of this proposed amendment be sent to each member.

Amendment to the BY-LAWS of the PROVIDENCE MEDICAL ASSOCIATION as approved by the Standing Committee. Article VII (Title) OF ETHICS. Section 1 (see page 25).

SECTION 1. The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relation to each other and to the public.

SECTION 2. There shall be a Committee of the Association to be known as the Committee on Medical Ethics and Deportment. It shall consist of eight appointed members and the acting President of the Association as an ex-officio member with voting power. The President shall appoint this Committee. When first made up, two members shall be appointed to serve for the term ending at the annual meeting in January 1936, two until the annual meeting in 1937, two until the annual meeting in 1938, and two until the annual meeting in 1939. Thereafter, two members shall be appointed each year by the incoming President at the annual meeting to serve for four years. Any vacancy occurring in the Committee shall be filled by the President at once.

SECTION 3. It shall be the duty of this Committee whenever any claim of mal-practice against a member of the profession is made or threatened to be made, to investigate the case and to advise concerning its handling in co-operation with all those concerned.

SECTION 4. It shall be the policy of this Committee and of the Association to respect the privilege of every member to testify in any case as his conscience and opinion may dictate, and the Committee shall not seek to prevent any member from so doing. It shall in all matters act with due regard to the rights of the patient.

SECTION 5. Whenever this Committee is informed that a claim of mal-practice is made or threatened, the Chairman or Secretary shall, as soon as possible, summon a meeting of the Committee for the purpose of investigating the circumstances connected with the case. Stenographic minutes shall be kept of all meetings, and the proper expenses connected therewith shall be paid by the Association.

SECTION 6. It shall be the duty of every member of this Association to notify the Chairman or Secretary of this Committee of any mal-practice claim made or threatened against him or against any other member of the profession and to appear before this Committee at any time when he may be called and give the Committee all the information he may possess regarding the case.

SECTION 7. It shall be the duty of every member of this Association who contemplates assisting in the preparation of a mal-practice claim or suit, or testifying in any such suit, to first notify the Committee of his intention and give to the Committee his reasons therefor.

SECTION 8. No member of this Association shall make a charge for services or accept any compensation for acting with regard to a mal-practice claim or suit unless the Committee shall consent.

SECTION 9. It is the policy of this Association that no member shall speak disparagingly of the treatment given

by any other member until he has made himself thoroughly familiar with all the circumstances as they existed at the time of the treatment.

SECTION 10. A violation of any of the above rules by a member of this Association shall be deemed just cause for his discipline by the Association.

SECTION 11. It shall be the duty of this Committee to prefer any and all charges against any member of the Association who has voiced criticism without justification and without seeking full information as to all the facts and without consulting with the Committee. These charges then to be submitted to the Standing Committee and acted on as prescribed in Section 6, Article 1, of the By-Laws.

ON THE IMPORTANCE OF OBSERVATION AND INDUCTION IN DIAGNOSIS

WITH SOME REMARKS ON ERRORS
IN DIAGNOSIS*

By GEORGE BLUMER

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I have sometimes wondered whether Conan Doyle, himself a physician, created the character of Doctor Watson with malice aforethought. Here was poor Watson, a hard-working general practitioner, with a heart of gold and a cranium of almost solid ivory, pitting his wits against and acting as a foil for the acute and penetrating Sherlock Holmes. We know who served as the prototype for Sherlock Holmes, but who was the pattern for Doctor Watson? In creating Watson did Conan Doyle mean to infer that many general practitioners are lacking in powers of observation and in capacity for induction, or was Watson perhaps merely an artistic adjunct like a bank-director or a vice-president? Conan Doyle is dead and, in spite of his belief in spiritualism, has not yet communicated with us so that we shall never know the answer to these queries.

The characteristics of Sherlock Holmes that made him so successful as a detective were the same characteristics that made his prototype, Dr. Joseph Bell, Conan Doyle's surgical teacher, so successful as a diagnostician. "Gentlemen," said Joe Bell, as a patient walked into his clinic, "you will observe that this man has been a piper in a Highland Regiment." Needless to say the class did not observe it and the

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patient himself, somewhat nonplussed, emphatically denied it. Joe Bell smiled a cryptic smile, ordered the patient into a back room, got a couple of husky orderlies to strip him, and there, branded on his shoulder, was the tell-tale D with which the British army of those days marked its deserters. "But, Sir," said a student to Joe Bell, "how did you know that the man had been a piper in a Highland Regiment?" "It was easy," said Bell, "to see from his carriage that the man had been a soldier and it was simple for me to recognize him as a highlander; he was too short for the line so he must have been a piper." As Sherlock Holmes would have said, "Elementary, my dear Watson, elementary."

As a second year student I wandered one day into the surgical clinic of Doctor John Morse, better known to the students as Johnny Morse. He might well have been dubbed the Joe Bell of the Pacific Coast. Quick and alert in his movements, he had clear-cut features, a sharp and penetrating glance, and a disconcerting way of seeing things that others missed. Beside him sat a patient, a middle-aged man with a very small, perfectly round swelling right in the center of his forehead. The senior class was called up man by man and requested to give a diagnosis of the case. Most of them called the tumor, a fibroma, a few ventured lipoma or osteoma. When they had all expressed an opinion, Johnny Morse turned to the patient and said, "When were you shot?" "A few years ago," said the man, "I was duckshooting with some friends and a pellet from a neighboring blind went wild and struck me in the forehead." Morse had seen what the students failed to observe, that there was a minute scar over the supposed tumor and from this and its size and shape had drawn the correct conclusion as to its origin and nature. "Elementary, my dear Watson, elementary."

Another old teacher of mine, Clinton Cushing, one of our early gynecologists, was asked to examine a woman who had been operated on two or three years previously for an ovarian cyst. He examined her after the usual gynecological fashion and discovered that the ovary on the other side was involved. He noted also that there could be felt through the fornix, inside the abdomen, a hard, perfectly circular band into which he could insert the tip of his finger. He concluded that the original operator, who was more noted for his dexterity than for his adherence to the tenets of antisepsis, had, during the operation, dropped a ring off his

finger. At the second operation Doctor Cushing removed not only a second ovarian cyst but also a very fine emerald ring, which he gave to the patient. The patient offered it to the original operator, who refused it. She then gave it to Doctor Cushing, who was wearing it the last time that I saw him. "Elementary, my dear Watson, elementary."

These stories may suggest that the speaker has reached his anecdote; nevertheless, they serve to emphasize the fact that observation and induction are of major importance in diagnosis. It is, of course, obvious that much more is involved in observation than the mere use of the eyes. The cultivation of the other senses, notably touch and hearing, is of paramount importance to the diagnostician. The sense of taste is seldom used nowadays, but I would remind you that diabetes mellitus was diagnosed by its use long before the introduction of copper reduction tests. The sense of smell is, in many of us, not particularly discriminative, but there are peculiarly gifted individuals in whom it is extraordinarily selective. Another old teacher of mine, J. O. Hirschfelder, once related how he made a diagnosis of diabetic coma while he was climbing the stairs to the patient's room from the strong smell of rotten apples which permeated the whole tenement. Somewhere in his writings Weir Mitchell tells of boarding a bus in Philadelphia with his father, Dr. J. K. Mitchell. They had gone only a block when his father remarked that they would get out again. "But why?" said Weir Mitchell after they had alighted. "There was a case of smallpox on the bus," said his father. "I smelt it." A somewhat similar story was told me by a confrere in San Francisco who had trained in Edinburgh. One winter soon after graduation he substituted for another practitioner in a remote country district in Scotland. He had among his patients a man with a fever, but he could not make out what the fever was. He called in the nearest country doctor, an old experienced practitioner, one stormy winter's night. The old doctor walked into the cottage covered with snow and muffled to the nose. As he uncoiled his muffler, round after round, he sniffed. "Ah," said he, before he had even approached the patient, "ye have a case of typhus fever here," and so it proved to be. Nor must we forget, in discussing observation, to refer to the ability to detect the mental peculiarities of the psychoneurotic or to spot the slight psychic aberrations which may characterize the patient in the early stages of insanity. Such changes usually present a

picture which must be appreciated by the intellectual centers rather than the senses.

To what extent the habit of observation is inherited and to what extent it may be improved by practice is an interesting question. There can be no doubt, I think, that men are not equally gifted at birth with this important faculty. Some are naturally acute observers, others are not. There is equally little doubt that the aptitude is one which can be cultivated to a considerable extent, particularly if training in observation begins in childhood. Those of you who read Kipling will remember how the old Yogi trained Kim of the Rishti. He would expose to his gaze for a given period a trayful of gems and he would require Kim, after removal of the tray, to repeat to him a list of its contents. This process was repeated from time to time until the pupil was perfect. In the youth of many of us here present tonight education was rather a formal and static affair, but it is now in flux and I am credibly informed that much more attention is devoted to the development of observation in children than was the case a generation ago. In our medical schools a similar result has been brought about by the substitution of laboratory work for lectures. It is interesting to note, in reading the lives of successful physicians, that in some of them the formal education of their time was replaced by a type of training of a much more casual character but of a kind likely to develop habits of observation. William Stokes, for example, whose name we quote whenever we speak of Cheyne-Stokes breathing or of the Adams-Stokes syndrome, never received a very formal education, but he passed many hours during his youth in long walks with his father, who was not only a physician but also a good naturalist. Thomas Addis Emmett, the American gynecologist, had a similar boyhood.

There is probably no faculty in which men normally show greater differences than in their powers of judgment. Even though our observation is correct, the deductions which we draw from our facts may be erroneous. This may be due to lack of knowledge of the possibilities, particularly if we are dealing with one of the rarer diseases or if we are young and lacking in experience. It may be due to the failure to appreciate that every case, no matter how simple it appears to be, must be considered as a problem. Lack of this appreciation results in a form of over-confidence that besets the experienced man more than the tyro and sometimes leads to curious

errors. One cannot, of course, draw conclusions without the facts on which to base them and in the early stages of many diseases and even in the late stages of some the history may be insufficient or physical signs may be absent or inconclusive so that correct diagnosis is impossible. After all, a diagnostic chain is no stronger than its weakest link and a carelessly taken history, an insufficient physical examination, the absence of some important laboratory test, a lack of knowledge of the possibilities, or poor reasoning, may any of them lead to an erroneous diagnosis.

Let us now consider some concrete errors in diagnosis, bearing in mind that we all inevitably make errors in diagnosis, some of them excusable and due to the inherent difficulties of the problem, others due to carelessness, bad judgment or lack of experience. And first let us consider two cases with a good deal of superficial resemblance but with quite different causes:

A Polish restaurant keeper of 50 was admitted to St. Raphael's Hospital in an unconscious condition. It was stated to the ambulance doctor who brought him in that he had been quite well up to the time of the present attack but that he had had business worries and had been drinking rather heavily at times. After his evening meal he suddenly complained of numbness and cramps in his left arm and his speech became thick. Soon after his left leg became numb, he was unable to stand and had to be assisted to bed. When brought to the hospital an hour or two later he was unconscious. On examination the following morning he was still completely unconscious. The right pupil was smaller than the left and both pupils failed to react to light. He had conjugate deviation of the eyes. The naso-labial line on the left side was somewhat ironed out. There was a short systolic murmur at the aortic cartilage and the blood pressure was 180/110. There were no definite changes in the reflexes. The urine was normal. A diagnosis of cerebral hemorrhage was made. The man was a hypertensive of the stocky muscular type, and the history and physical findings seemed perfectly compatible with the diagnosis. The next morning the patient was perfectly conscious, his pupils were still unequal and rigid and his paralysis had disappeared.

In view of this rapid recovery it seemed highly improbable that the picture could be explained by a cerebral hemorrhage and it was suggested that he might be a paretic. His spinal fluid showed 14 cells

to the cubic millimeter and when the Wassermann reactions were reported a day later both the spinal fluid and blood showed a four plus reaction. The subsequent course of the case confirmed the revised diagnosis of paresis.

A few days later a married woman of 47 was brought into the ward in an unconscious condition. Her husband stated that she had been in perfect health for years preceding this illness. Her symptoms began with numbness in the left arm and leg, followed by a jumpy feeling in the limbs of the left side. There was inability to use the left arm and this was soon followed by unconsciousness. She was seen by one of the attending physicians who found her completely unconscious with twitching of the left side of the face, the left arm and the left leg. There were no lesions in the internal organs and the systolic blood pressure was only 120. The urine was normal.

Here again it seemed as though a cerebral accident had occurred, possibly a hemorrhage, but the next morning when I saw her the patient was quite conscious and had no complaints except numbness of the left side. The deep reflexes in the left arm and leg were diminished and there was a suggestive Babinski on the left side. The eye grounds were normal. The original diagnosis being improbable, it was suggested that she too might be a paretic or that she might have a cerebral neoplasm. In view of the latter contingency a lumbar puncture was deferred. The blood Wassermann was complete negative. Stereoscopic X-rays of the skull showed a dense shadow the size of a golf ball just to the right of the median line near the Rolandic area. At operation my colleague, Dr. W. F. Verdi, removed the tumor which was just about the size of a golf ball and though soft was full of calcareous material which undoubtedly accounted for the dense shadow. There was no hemorrhage into the tumor, but there was a sharply localized area of fresh meningitis directly over it which no doubt accounted for the symptoms.

These cases have been reported to show how closely the history and symptomatology of cerebral hemorrhage can be imitated by entirely different lesions. It is, of course, quite common for paretics to have convulsive seizures, though they are not so commonly associated with localizing signs such as occurred in the case reported. It is also not uncommon for patients with cerebral neoplasm to present themselves under the guise of a cerebral accident,

very often due to a hemorrhage into a latent tumor, but it is usual, I think, in such cases to find by careful questioning some history of preceding mental disturbance.

I would remind you, too, that some other conditions may produce temporarily a picture which suggests a cerebral hemorrhage, although as in the reported cases it is generally possible to reach a correct diagnosis in time. Patients with heart block not infrequently have apoplectiform seizures. Chronic alcoholics occasionally have apoplectiform seizures.

There is another type of case which is illustrated by the following history:

A physician of fifty-nine years of age got up one morning as usual and while putting on his clothes noticed numbness in the right side of his body with loss of power in the right arm and leg and thickness of speech. He had been perfectly well the night before. He had no headache and there was no loss of consciousness, not even mental confusion. He was a man who always enjoyed good health but according to his wife he had been nervous for several months and had not been sleeping well. He denied specific infection and was not a drinker.

Examination about 11 o'clock in the morning showed a lower facial paralysis on the right side, a very weak grip in the right arm, and weakness of the right leg. His left pupil was a little larger than the right but both reacted to light and accommodation. The eye grounds were negative. The pulse was not slow. The heart showed a good many premature contractions. The sounds were clear. The blood pressure was 126/80. Tendon reflexes on the left side were exaggerated and there was ankle clonus and a Babinski reaction on the left side. The speech was rather thick but there was no aphasia. Examination of the lungs and abdomen was negative. The paralysis completely cleared up within three hours, but returned for about an hour in the afternoon. The following day there was only slight thickness of speech and a very slight lower facial weakness. The ankle clonus had disappeared and there was only a suggestion of a Babinski. On the 17th he felt perfectly normal. All paralysis had disappeared and the physical signs were negative. The Wassermann report come in by this time was absolutely negative. The patient has been perfectly well since and in active practice.

This case represents a type of lesion which simulates a cerebral accident but which is apparently not

due to hemorrhage, thrombosis, or embolism. The usual explanation of these cases is that they are due to temporary arterial spasm, but this explanation is not entirely satisfactory. I saw one case, also a physician, who had an aortic aneurism with a four plus Wassermann who had thirty such attacks. While I am not satisfied as to the common explanation, I mention these cases because they are likely to be confused with a cerebral hemorrhage.

The general point which these cases emphasize is that localizing cerebral signs are indicative of the *site* but not the *nature* of the lesion. This is well illustrated by the following case:

An American girl of 21 complained that her arms were lifeless and that she suffered from occipital headache.

She had not been perfectly well for two years. She first noticed lifelessness, as she described it, in one finger and it gradually developed so that after a while any muscle would give out on exercise. Late in the afternoon she was unable to keep her eyes open. For eighteen months her speech had gradually become more nasal. When she was nervous she would have very severe occipital headaches. Her hearing was not as good as it had been and she claimed that she was unable to read, but an oculist was unable to find any errors in refraction or changes in the eye ground. She had difficulty in swallowing and some difficulty in breathing. She had a good deal of difficulty in chewing her food. She was very constipated. She had not lost any weight.

There was nothing particular in her family history or in her past history, and examination showed that she was well nourished, that she had a distinctly nasal voice, that her pupils reacted sluggishly, that there was ptosis on both sides—more marked on the left—that she could only lift her arm about twenty times without tiring, and that the internal organs were all negative. The urine was also normal. The obvious diagnosis seemed to be the rather rare disease known as myasthenia gravis. The patient was referred to Dr. James C. Fox, who confirmed the diagnosis. On a second visit to Dr. Fox it was found that a double choked disk had developed, and the patient died about three months later with definite evidences of a brain tumor.

There is another type of cerebral lesion which not infrequently gives rise to errors in diagnosis which is illustrated by the following case:

A man of 38 was found about three hours after a heavy supper lying on the bathroom floor in a stuporous condition but not completely unconscious. When seen by his family doctor within twenty minutes he was almost pulseless, gasping for air and cyanotic. He rallied after stimulation and the following day developed fever. He continued in a semi-conscious condition with involuntary defecation and urination.

Seen at the end of 24 hours he had no stiff neck, his pupils reacted to light and accommodation, his eye grounds were negative and he had a rather doubtful Kernig sign on one side. A lumbar puncture attempted at the patient's home was not satisfactory. His lungs showed no definite dullness and no localized modification of the breath sounds, but many bronchial râles. The heart sounds were clear but of poor quality. The abdomen was negative. Blood pressure 158/80. The urine was negative. The temperature had risen to F. 105°. The leukocytes were 13,000.

It was evident that the man had symptoms and some signs of meningeal and cerebral irritation but not a clear-cut picture of any specific disease. There was a suspicion of meningitis. It was suggested that in spite of the absence of signs of lung consolidation the man might have a central pneumonia and the cerebral signs might be due to meningism. Forty-eight hours after the onset of the illness definite signs of consolidation appeared in one lung and the patient recovered completely after the usual course of lobar pneumonia.

The condition of meningism or meningismus is one which may occur in a number of infectious diseases, more commonly in childhood than in adult life. When it occurs during the course of an infection it causes much less diagnostic difficulty than when it occurs at the onset of the infection and dominates the picture. It may be mistaken for meningococcus cerebrospinal meningitis and it may mask the onset of pneumonia, typhoid fever, typhus fever or influenza. Headache, delirium, retraction of the head, stiff neck, ocular paralysis and muscular twitching may all be present, but there is seldom a clear-cut Kernig's sign. The nature of the changes is early determined by a lumbar puncture, for there is no increase in the number of cells in the spinal fluid from these patients.

I wish to refer to one other type of case before we leave the discussion of cerebral disease and I shall have to rely on my memory for the main facts in an illustrative case:

When I was a house officer in Baltimore a middle-aged man was brought into the medical wards complaining of severe headaches, occasional convulsions and failing vision.

Examination showed a pale, rather sparsely nourished individual with very prominent eyeballs, double choked disk, but no localizing cerebral signs. His pulse was rather slow and decidedly incompressible. His heart was moderately enlarged and his second aortic sound was accentuated. His urine was of low specific gravity and at times contained a trace of albumin and a few casts. While he was in the hospital he had several severe generalized convulsions lasting several minutes and in one of these he finally died.

All of the house officers who saw the case diagnosed it as a brain tumor, but Dr. Osler was skeptical and suggested that it was chronic interstitial nephritis. This, of course, was before the days of blood chemistry, X-rays of the skull and the modern sphygmomanometer. The autopsy showed no sign of a brain tumor. The man had small, red, granular kidneys and the case is related merely to make the point that there are cases of chronic nephritis with chronic uremia in which typical choked disk may occur and if, as in this case, convulsions are also present, a diagnosis of brain tumor is likely to be made.

We have already discussed the masking of pneumonia by meningeal symptoms. Let us now consider some other sources of error in pulmonary disease:

A woman of 52 took to her bed October 14, 1932, with pain in the left chest increased by breathing. She did not have a chill. There was fever ranging from F. 99 to F. 101 with some sweating at night. There was cough but no expectoration. She had apparently lost a little weight.

Examination showed a strongly-built, muscular woman who was markedly sunburned. Examination of the lungs showed an area of rough breathing in the left infraclavicular region and a few moist râles at the left base. There was no enlargement of the lymph nodes. The abdominal examination was negative. It was thought that she had a small patch of bronchopneumonia following a grippe attack. As time went on the pulmonary signs failed to clear up and a month later an enlarged gland was discovered on the left side of the neck. This was removed and showed an adenocarcinoma. A little later a pleural effusion developed and 750 c.c. of

clear fluid was removed. An X-ray of the chest showed a picture which was compatible with a diagnosis of pulmonary neoplasm, and four months after her first symptoms the patient died with signs which confirmed this diagnosis.

This case illustrates two points of interest: (1) that a pulmonary neoplasm may present itself under the guise of an acute process, and (2) that infection of pulmonary neoplasms is a common occurrence and may for a time completely mask the real disease. In a somewhat similar case seen about the same time a clear-cut shadow in the lung X-ray of a middle-aged man was diagnosed as an abscess. An operation was performed and several ounces of pus were evacuated. The patient apparently recovered but two months later returned for re-examination on account of recurrent cough and loss of weight and the X-ray demonstrated multiple tumor masses throughout the involved lung.

The following case illustrates a more common type of diagnostic difficulty:

A student of 18 was taken sick rather suddenly with fever (maximum F. 103), anorexia, occasional vomiting and constipation. At first he had no cough but after a few days this appeared with mucopurulent expectoration. There was some sweating at night and it was noticed that the patient became dyspneic and quite cyanotic when he went from his bed to the nearby bathroom.

Examination showed slight cyanosis with rather rapid respirations. On sitting up in bed the patient became quite breathless and cyanotic. Just below the sternal end of the right clavicle there was an area of modified bronchial breathing with fine moist râles and a second area of frankly tubular breathing with moist râles was found just inside the angle of the right scapula behind. The physical examination was negative otherwise, and two examinations of the sputum for tubercle bacilli were also negative. It was thought that the boy had bronchopneumonia. For a week he improved and then the cough got worse, the expectoration became very heavy and yellow and he began to lose weight. A second examination a month later showed a hectic flush, sinking in of the right supraclavicular region, impaired resonance at the right apex, and many typical crackles. He was sent to a hospital where tubercle bacilli were finally found in the sputum and an X-ray showed shadows indicative of pulmonary tuberculosis. He finally recovered under sanatorium treatment which included artificial pneumothorax.

This case illustrates something well known to all of us but which we sometimes forget or overlook, namely, that tuberculous pneumonia, whether of the lobular or lobar type, cannot be differentiated in its early stages from ordinary pneumonia and that if an apparently acute pulmonary process fails to clear up as we expect we must always have in mind the possibility that it is of acid-fast etiology.

With the exception of the more obscure diseases of the nervous system there is probably no field of diagnosis more difficult than abdominal diagnosis. I will present a few histories illustrating this:

A student of 18 was suddenly taken one evening with acute epigastric pain, vomiting and fever. Seen by his local physician he appeared shocked, with a rapid, thready pulse and cool extremities. He was at once sent to a hospital and was examined by an internist and a surgeon. The outstanding findings were a board-like, rigid upper abdomen which was somewhat sensitive, and a leukocyte count of about 20,000 with a high polynuclear ratio. The examination of the heart and lungs showed no definite abnormalities. A diagnosis of a perforated gastric ulcer was made, but at operation, which was performed within an hour after entrance to the hospital, the abdominal organs were entirely normal. The next morning there were unequivocal signs of consolidation of the right lower lobe, and the patient, after running the usual course of lobar pneumonia, recovered promptly.

This case illustrates the fact that in some cases of lobar pneumonia the early symptoms and signs may be referred to the abdomen. This is particularly likely to occur in children but occasionally occurs in adults. Not infrequently a diagnosis of appendicitis is made and an operation is performed, only to find a normal appendix. Much more rarely acute pancreatitis is diagnosed, as in a case reported by Halsted. In most of these patients a careful examination of the chest will reveal suspicious signs, but occasionally the pneumonia is central at the onset and the signs do not appear until after the operation. Such cases emphasize the importance of a careful general examination in all patients with acute abdominal symptoms and are instances of referred pain. In children one occasionally sees pneumonia cases which begin with earache, as Meltzer pointed out years ago, another example of referred pain with a different distribution.

A different type of case is illustrated by the following history:

A child of 8 was brought into hospital with acute abdominal pain, severe backache and vomiting. She showed a high leukocytosis with abdominal rigidity and tenderness and a diagnosis of acute appendicitis was made. At operation a normal appendix was removed. The next day high fever continued, the patient complained of sore throat and the surgeon noted an erythematous eruption which was especially marked in the groins and axillae. The child was transferred to the isolation hospital where a characteristic punctate erythema developed and the child, after going through a perfectly typical and rather severe attack of scarlet fever, recovered.

This case illustrates the fact that severe general infections are, at time, ushered in by acute abdominal symptoms which simulate an acute surgical abdomen. This is particularly likely to occur in scarlet fever, but may occur in general septicemia. The underlying pathology is obscure. In one autopsied case, a general infection with Friedlander's bacillus, nothing was found to explain the abdominal pain.

Another type of mistaken diagnosis in abdominal disease which unfortunately is far from uncommon is illustrated by the following case:

An operation for gall-bladder disease was proposed to a married Italian woman of 43, the mother of 8 healthy children. The family desired a second opinion before consenting to an operation and the following symptoms and signs were elicited:

The patient had not felt perfectly well since the birth of her last child eight years previously. She had been weak and constipated. For three months she had suffered from attacks of pain in the left hypochondrium radiating to the back and left shoulder; these might last for 3 or 4 days. With the attacks she vomited. There was never any jaundice or any fever with the attacks. An X-ray of the gall bladder was negative.

Examination showed a well-nourished but rather sallow woman. The pupils were unequal, irregular and did not react to light; they did react to accommodation. The pulse was regular, the blood pressure was 140/82, and there was a harsh systolic murmur at the aortic cartilage with a ringing second aortic sound. The lungs were clear. The liver was not enlarged, the gall bladder notch was easily felt and there was no tenderness over it. The knee jerks could not be obtained even with reinforcement. There was slight hypoesthesia of the skin of the legs. Rombergism was not present. A spinal tap was done and the spinal fluid, likewise the blood,

showed a 4 plus Wassermann. Needless to say the operation was deferred.

This type of case is far too common and this patient differed from many similar ones, mainly in the fact that she had no abdominal scars. It is the rule for these patients to present themselves with from one to three scars, over the appendix, the gall bladder, or the stomach regions. It is difficult to find an excuse for mistakes of this sort, for a considerable majority of patients with *tabes dorsalis* present clear-cut signs, and one can only conclude that operations on such patients result from careless examination on the part of the surgeon. It is true that the diagnosis of *tabes* is not always simple, but in most cases it is not difficult.

I might continue with illustrations of the difficulties of abdominal diagnosis, especially in cases with pain as a presenting symptom, but the time is limited. I would remind you that abdominal pain is not infrequently due to extra-abdominal lesions, that acute sacroiliac disease, coronary occlusion, lead poisoning, arthritis of the spine with nerve root pressure and metastatic malignant growths with nerve root pressure may all simulate abdominal lesions. One could easily devote a whole evening to a discussion of the obscure causes of abdominal pain.

I wish to refer now to a fairly common general disease which causes confusion by simulating local disease. The following case illustrates the point:

Early in January a school teacher of 27 began to complain of pain in her knees with headache over both eyes, pain in the back of the neck and a reduction in the output of urine. Examination showed that the knees were slightly swollen and tender, there was tenderness over both supra-orbital regions, and the nasal mucosa was markedly congested. The temperature was $F. 100^{\circ}$. The urine contained no albumin but showed a few red and white blood cells. She was thought to have an upper air passage infection with sinusitis, mild arthritis and possibly a mild nephritis. The fever and scanty urine continued and after 4 or 5 days edema of the eyelids developed. A blood count was then made which showed 8,500 leukocytes of which 26 per cent eosinophils. This led to a more careful dietary history and it was discovered that 8 or 9 days before the onset of her illness she and a companion had eaten some underdone pork. While she never had any pronounced muscle tenderness, a piece of muscle was excised and several trichinae were found in it. The final diagnosis was trichinosis.

I call your attention to this case because trichinosis is by no means a rare disease in this country and is frequently wrongly diagnosed. In this particular case it was natural at the onset to regard the case as one of sinusitis and this is not the first time that such an error has been made. Nearly 20 years ago Dr. E. L. Pratt published an article on the simulation of acute sinusitis by trichinosis. These cases are also taken for nephritis at times, especially if there is little or no fever and if a blood examination is not made. Only recently Horlick and Bicknell have shown that, contrary to the usual statement that the parasite does most of its damage to striped muscle, both unstriped muscle and the kidney can be damaged. The commonest mistake, however, is to regard these cases as typhoid fever and the simulation may be very close; even spots like rose spots may occur. However, edema of the eyelids, which is very common in trichinosis, never occurs in typhoid fever, and the blood picture, with its marked eosinophilia, at once calls attention to the probable diagnosis. The disease may also produce meningism and may be taken for meningitis. As a matter of fact trichinae may be recovered from the spinal fluid as Van Cott showed many years ago. I have laid some stress on trichinosis not only because it is fairly common and often misdiagnosed but also because of its increasing medico-legal importance.

The subject you have assigned to me presents almost unlimited possibilities for discussion, for there are but few diseases which may not at times present themselves under some unusual guise. It is even true that normal conditions may be mistaken for pathological ones. One still occasionally sees the normal sinus arrhythmia of childhood diagnosed as serious heart disease. I once saw a young physician incise the belly of the long extensor of the big toe as an abscess. Lordotic albuminuria may be mistaken for nephritis and renal glycosuria for diabetes mellitus. Myxedema may be mistaken for Bright's Disease. Emphysema may mask pulmonary tuberculosis, aneurysm or mediastinal tumor. But as Longfellow said, "Art is long and time is fleeting," and we must come to an end sometime. All I have attempted to do is to call your attention to some of the common mistakes which have come to my personal attention and you will have noted that some of them were due to the inherent difficulties of the subject, some were due to poor observation, some were due to poor induction, and some, alas, were due to ignorance or carelessness.

THE RHODE ISLAND MEDICAL JOURNAL

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RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

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ROLAND HAMMOND	<i>1st Vice-President</i>	Providence
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R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President.
Dr. Robert C. O'Neil, President; Dr. N. A. Bolotow, Secretary.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Archibald C. Matteson, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

PAWTUCKET
Meets the third Thursday in each month excepting
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HENRY J. HANLEY *President* Pawtucket
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PROVIDENCE
Meets the first Monday in each month excepting
July, August and September
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WASHINGTON
Meets the second Wednesday in January, April,
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Meets the second Thursday in each month excepting
July and August
W. A. BERNARD *President* Woonsocket
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EDITORIALS

PUBLIC HEALTH AND POLITICS

The Health Department of the City of Providence, thanks to the keen insight and constant diligence of its former Chief, Dr. Charles V. Chapin, has for many years been the pride of all understanding citizens. During all this period it was ever free from the baneful influence of party politics. Otherwise, the brilliant advances in Public Health matters in which Dr. Chapin led the profession to

new conceptions of disease transmission and prevention could not have been achieved. Under Dr. Richardson the department has been maintaining its characteristic high standard of work and carrying on the spirit of its former director.

It is well, also, for the local profession to realize that under men similarly free from political domination the laboratory of the State Board of Health has been giving an excellent account of itself. In the matter of statistical and epidemiological studies as well as routine laboratory procedures in the fields of bacteriology, chemistry and pathology, Dr.

Rounds and his associates have given to the people of the State and to the medical profession a service that is worthy of the highest praise.

In this situation the JOURNAL deems it a duty to point out the grave danger to the people of our State that will be inherent in any situation in which party politics interfere with the organization and operation of these vital departments. Public Health and Party Politics cannot be mixed. It is to be hoped that every physician in the state, whatever may be his political leanings, will take every opportunity to emphasize his objection to any transgression of this rule.

UNDULANT FEVER

Rhode Island has followed closely its program for the elimination of tuberculosis in cattle. In the near future we may expect the State to be free from bovine tuberculosis. It should be.

Our farmers have opposed this legislation, but they have unwittingly been paying for the support of those who were infected by milk, and cared for in State institutions.

It is useless to have grade-A milk if we allow tuberculous milk to enter into the manufacture of butter, cheese, and ice cream.

Too many parents are strict about milk, and extremely careless when buying ice cream for their children. Such inconsistency is amazing, especially in obviously intelligent people. It creates a situation; since dairy products, and especially ice cream, are likely to be bought anywhere along the way, the only solution of our problem is to prohibit the sale of all milk products unless they are certified or pasteurized. It would protect us, not only against tuberculosis, but against undulant fever. We should take undulant fever as seriously as tuberculosis, and fight it with the same vigor.

In order to avoid confusion, it might be advisable to set a date, after which milk produced within the State shall come from cows free from abortus infection. Rhode Island might duplicate the New York Sanitary Code, which holds January 1, 1936, as the actual date when the regulation against Bang's disease will be enforced. This is one of the most important methods of attack. The prevention of undulant fever in humans depends on its success.

Meanwhile, the dangers of abortus infection should be explained to farmers. It is an expensive disease, from the farmer's standpoint. He should

be easily convinced that it is in his interest to eliminate infected cows from his herd. He should be made to realize that he is helping to pay institution charges increased by those infected by milk, that it is not only a moral obligation, but sound common sense, to co-operate with the State and get rid of diseased heads.

THE VOICE OF ORGANIZED MEDICINE

Memory does not recall any instance in which the invasion of medical affairs by politics has been advantageous to either the medical profession or the public. There is hardly any profession which is as highly specialized as is medicine. There exists no line of thought in which tinkering and tampering with well established methods and adequate personnel would result in so much hygienic woe.

Should any engineer suggest an absurd reduction of the number of rivets to be used in bridge construction he would soon be voted down by the engineering profession. There is or there should be but one consideration for health department or hospital offices and that is fitness for a position. Wherever there has been the indiscriminate supplanting of hospital staffs or able officials, disaster has always followed. Incompetence always brings its toll. It does not follow, however, that those who fill the places of officials or physicians whose heads fall under the "spoils system" are necessarily unfit, but it is equally true that many of our departmental heads are, through ability or long experience, particularly suited to the positions they fill.

Consider what would happen if different political parties succeeded one another in rapid succession. A staff would no sooner get into good working order but another would arrive to take its place. The doctrine to "let well enough alone" is a good one particularly when our "well enough" is very good indeed and in the present case of our health department has brought success and distinction to our State and city. We have never heard of any particular objections or complaints about our present health department, and it would seem that any contemplated change would not be for the purpose of increased efficiency but more for sharing in an institution that has been so successful as to be notable. As far as health matters are concerned, nothing can justify manipulation or change of an administration whose outstanding excellence is so well and generally recognized.

REPORT OF THE MILK COMMISSION
OF THE
PROVIDENCE MEDICAL ASSOCIATION

REUBEN C. BATES, *Secretary*

Certified Milk in Providence during 1934 was obtained from the following farms: Cocumcussoc Farm, Wickford, R. I.; Cherry Hill Farm, North Beverly, Mass. Fair Oaks Farm, Lincoln, R. I.; Hampshire Hills Farm, Wilton, N. H.; Walker-Gordon Farm, Charles River, Mass.

Through the courtesy and co-operation of the Boston Commission we have accepted their certification of two farms from Massachusetts and one from New Hampshire.

Bacteriological and chemical examinations of the milk are made in the laboratories of Brown University under the supervision of Professor Charles Stuart. Potency tests on Vitamin-D Milk are conducted in the laboratories of Professor John Bunker

at Massachusetts Institute of Technology. All the farms have Accredited Herds and are free from Abortus infection.

Letters have been sent out to many new mothers to acquaint them with the qualities of Certified Milk. Pamphlets and advertising material have also been sent out to the physicians and dentists. A symposium on Vitamin-D Milk was held, at which time Dr. Bunker of Boston gave us an interesting talk concerning vitamins. The usual full page advertisement appeared in the R. I. MEDICAL JOURNAL. During the year joint meetings of the producers and commission have been held and many problems have been discussed regarding the production and advertising of Certified Milk.

The personnel of the Commission includes Drs. Harold G. Calder, Chairman; A. Roland Newsam, Francis V. Corrigan, George W. Waterman, Robert H. Whitmarsh, Henry E. Utter, Harmon P. B. Jordan, Raymond L. Webster and Reuben C. Bates, Secretary and Treasurer.

MONTHLY AVERAGES OF CERTIFIED MILK

	COCUMCUSSOC			CHERRY HILL			FAIROAKS			HAMPSHIRE HILLS			WALKER-GORDON		
	B.F.	T.S.	Bacteria per c.c.	B.F.	T.S.	Bacteria per c.c.	B.F.	T.S.	Bacteria per c.c.	B.F.	T.S.	Bacteria per c.c.	B.F.	T.S.	Bacteria per c.c.
January	4.45	13.50	3,855	4.20	13.17	2,075	4.56	13.76	2,722	4.10	13.06	*12	4.03	12.69	2,587
February	4.52	13.52	2,915	4.26	13.26	812	5.01	14.29	2,150	4.31	13.24	.....	4.12	12.88	2,212
March	4.43	13.91	2,946	4.11	12.92	1,210	4.70	14.04	1,611	4.28	13.28	.....	3.92	12.39	1,870
April	4.52	13.48	2,262	4.18	13.03	1,750	4.85	13.97	1,706	4.12	13.07	.....	3.90	12.44	3,187
May	4.41	13.37	5,300	3.88	12.76	2,140	5.12	14.36	1,210	4.31	13.27	.....	4.13	12.78	2,775
June	4.56	13.56	5,250	4.06	12.41	4,510	4.72	13.60	1,678	3.94	12.75	.....	4.13	12.63	8,060
July	4.44	13.35	3,432	3.91	12.75	1,757	4.45	13.23	3,050	4.23	13.05	.....	4.46	12.64	4,150
August	3.97	12.93	1,160	4.36	13.36	2,330	4.38	13.31	1,893	4.00	12.87	.....	4.06	12.64	2,738
September	4.38	13.32	2,406	4.13	13.05	1,237	4.21	13.29	1,356	4.12	12.90	.....	4.07	12.74	2,862
October	4.46	13.50	1,672	4.15	13.03	1,625	4.30	13.24	1,011	4.22	13.07	.....	4.35	12.99	1,786
November	4.56	13.59	3,472	4.36	13.37	1,810	4.79	13.76	1,927	4.20	13.10	.....	4.19	12.95	1,970
December	4.51	13.54	2,664	4.20	13.02	1,462	4.02	13.07	364	4.13	13.03	.....	4.13	12.98	62
Yearly Average ..	4.71	13.50	3,209	4.11	12.97	3,113	4.59	13.66	1,723	4.16	13.05	.....	4.12	12.72	2,854

*Hampshire Hills sells *Pasteurized Certified* only.

THE REPORT
OF THE ANNUAL MEETING OF THE
NEW HAMPSHIRE MEDICAL SOCIETY

May 15th and 16th, 1934

By HERMAN A. LAWSON, M.D.,
and
C. S. WESTCOTT, M.D.

The Annual Meeting of the New Hampshire Medical Society was held in Manchester, N. H., on May 15th and 16th of this year. Dr. Clinton Westcott and I attended as delegates from the Rhode

Island Medical Society and enjoyed the cordial hospitality of our New Hampshire brethren.

The scientific sessions we found very interesting and profitable. The annual meeting of this society occupies two full days in contrast to the custom of our own State Society. The evening of the first day was given over to social activities which were held in the ballroom of the Hotel Carpenter. We were entertained by speakers, a splendid choir, other singers and dancing.

The scientific sessions began with a paper on "Prolapse of the Uterus During Pregnancy" by Dr.

Donald E. Higgins. The patient was a thirty-eight year old woman in whom the cervix and lower segment of the uterus protruded four inches beyond the vulva. A Porro Caesarean hysterectomy was performed. The child, a five pound girl at birth, was alive and well two months later. The mother made a rapid recovery. The speaker showed moving pictures of the operative procedure.

The second paper was a report of a case of Phenobarbital Poisoning by Bernard P. Haubrich. The patient was a primipara in the sixth week of her pregnancy. She was being treated for morning sickness, and fourteen days after taking Phenobarbital, grains $\frac{1}{2}$ three times a day, developed an eruption, enlargement of the glands of the posterior angle of the neck, and fever. The attending physician made a diagnosis of German Measles. Nine days later he was called to see this patient and found that she was running a fever from 100° to 103° , that she complained of soreness in the glands of the neck, malaise, and that she was covered with a diffuse, blotchy erythema over the chest and abdomen greatly resembling a measles rash. The medicine was discontinued and in four days the patient's temperature was normal and she was completely well. Because of a return of the nausea and vomiting, the medicine was taken again, and within forty-eight hours she complained of fever, the same type of measles rash, sore throat, dysphagia, headache, sore and swollen eyelids, and itching of the skin. The medicine was discontinued. On the nineteenth day she had marked jaundice and on the twenty-fourth day had a miscarriage. This was followed by profuse desquamation all over the body. She made a complete recovery, but it was 11 or 12 weeks before the pigmentation of the skin entirely disappeared. The speaker pointed out that two types of poisoning are encountered:

1. Those resulting from therapeutic doses
2. Those resulting from an over-dose

He pointed out that from one to three percent of patients taking Phenobarbital show toxic symptoms resulting in skin eruptions which are of two types; namely, urticarial, or a measles or scarlatini-form, maculopapular erythema. There is a fever from 101° - 102° and there may be gastro-intestinal symptoms such as nausea, vomiting and diarrhea. There is often adenitis, and if the skin eruption is well marked there is usually an eosinophilia. Poisoning has been reported from the use of very small doses, as in one patient who developed symptoms on the second day when taking one-quarter grain twice

daily. The treatment recommended is: (1) intravenous glucose in the toxic cases; (2) Coramine—intravenous injection of 5 c.c. of a 25% aqueous solution. Reece has reported that patients in profound narcosis, following the intravenous injection of 12 to 20 grains of sodium amytal, who would ordinarily sleep from 10 to 14 hours, were awake in two to five minutes and within five to ten minutes had returned to normal both physically and mentally. Haubrich concludes, therefore, that Coramine should be used as the antidote for marked Phenobarbital poisoning. He recommended, also, that some restrictions be placed upon the indiscriminate sale and use of these substances.

The third paper was entitled "Bone Tumors. Report of Two Cases of Benign, Giant Cell Tumors," by Dr. H. L. Taylor of Portsmouth, N. H. Dr. Taylor pointed out that "bone cysts, giant cell tumor, chondroma and the like require thorough curettage, cauterization and in the case of the cysts crushing in of the bone shell. To hasten ossification giant cell tumor and chondroma, bone chips may be inserted into the cavity to hasten formation of new bone. Sarcomatous tumors of bone on account of the poor results of extensive mutilating operations should be treated in a conservative manner. Extensive X-ray treatment for three months followed by resection and bone grafting of the upper extremity and amputation well about the seat of tumor formation of the lower extremity. Cancer should be treated by the X-ray and no operation performed. The malignant cysts, myxoma and myelomas require resection or curettage with cauterization and bone chips, either from bone shell or the tibia to hasten ossification.

"Taking everything into consideration, careful study of the case and conservatism should be the rule."

The afternoon session on May 15th was opened by awarding a medal to two physicians who had been active members in the New Hampshire Medical Society for fifty years. The president also accorded recognition to seven members who had been active in the practice of medicine for fifty years or longer. This was followed by the annual address of the President, Dr. Robert J. Graves. His address was entitled "How Far?" by which he meant how far toward Moscow, Rome, Berlin or even Washington we should go in introducing new methods in social and economic practices. It was an excellent address dealing principally with the economic difficulties of physicians and with the atti-

tude they should take toward the public and toward any plans for medical practice. He made reference to House Bill No. 417: An act authorizing the State to pay for medical care of certain charity patients as part of the welfare relief. Although the act had resulted in many abuses he felt that eventually, with modifications, it would be regarded as wise legislation. He called attention to the fact that physicians must interest themselves in well people as well as sick people and that physicians must take the proper attitude toward health examinations of these people. He warned that the doctors must be ready with plans for this changed social and economic order or else have plans forced upon them by the laity. He spoke of the abuses of free and "ten cent clinics" and of the amount of free work done by physicians privately. Physicians, he said, have no political talent, but they must organize, for the public good first, and for their own welfare secondly. Today's problems, he said, can best be met by the proper functioning of the County Society. The most serious criticism of medicine is not in the professional and technical side, but arises from the fact that the administrative and social side has not kept pace with the former. The State Medical Societies must prevent ill-advised legislation and they must be alert to prevent lay interference, for we want no new social agencies.

The president's address was followed by a symposium on tuberculosis in which the medical aspects were dealt with by Drs. Robert Demming and A. S. Petroff of Saranac, the surgical aspects by Dr. Richard Overholt of the Lahey Clinic, and the roentgenological aspect by Dr. A. S. Merrill of Manchester, New Hampshire. Dr. Petroff spoke on anti-tuberculosis vaccination. He condemned severely B.C.G. vaccination as "a costly human experiment which, since the death of its originator, is slowly passing into oblivion." Dr. Overholt gave a "discussion regarding the common basis for all collapse procedures in the treatment of pulmonary tuberculosis." He emphasized the "importance of differentiating temporary and permanent forms of collapse." He gave the "broad indications for the various collapse procedures" and "a brief review of the present status of 155 patients treated by collapse therapy other than pneumothorax." "The ideal plan of collapse therapy for any case is the one which will not only check the progress of the disease but will leave the patient with the diseased lung collapsed and all healthy portions of the lung expanded and capable of function."

The meeting on May 16th opened with the recognition of delegates from other New England States. Only two states were represented by delegates, there being two from Massachusetts and two from Rhode Island. This ceremony was followed by a paper on Friedman's Modification of the Ascheim-Zondek Test for Pregnancy by Dr. J. N. Friborg of Manchester, New Hampshire. Following this paper, Dr. William P. Murphy of Boston showed a three-reel moving picture dealing with pernicious anemia, particularly diagnostic points and methods of treatment. At the afternoon session Dr. Alvarez of the Mayo Clinic read a paper entitled "What Is Wrong with the Patient Who Feels Tired, Weak and Toxic?" This was a most excellent paper, brim full of the wisdom and good sense so characteristic of Dr. Alvarez, with many valuable lessons learned in his wide experience. The second paper, "The Diagnosis and Treatment of Breast Cancer," by Dr. Frank E. Adair of the Memorial Hospital of New York City, concluded the exercises.

SOCIETIES

RHODE ISLAND MEDICAL SOCIETY COUNCIL MEETING—NOVEMBER 22, 1934

The regular quarterly meeting of the Council was held at the Medical Library on Nov. 22, 1934, at 4:30 P. M., and was called to order by the President, Dr. A. H. Miller.

The Treasurer's Budget for the year 1935 was presented by the Treasurer, Dr. J. E. Mowry, and the Council voted approval of the budget as read and recommended it to the House of Delegates for adoption.

Dr. Chas. L. Farrell, Chairman of the Committee on Education, State and National, presented a comprehensive report for his committee which comprised extensive plans to inform the lay public on medical matters. These plans included a series of popular lectures on Sunday afternoons during January and February of 1935, the distribution of medical information through the medium of milk distributors, and by means of printed statements which the physicians would include in their monthly statements to their private patients of record dealing with such subjects as the value of diphtheria immunization, vaccination, pre-school examination, etc. These were to be furnished at cost to the physicians, and would bear the statement that informa-

tion was approved by the Rhode Island Medical Society. Dr. Farrell pointed out that all these projects would entail the expenditure of considerable money. A thorough discussion of the whole program resulted in a vote being passed that the Council approved the free public lecture courses, and the appropriation of an amount not to exceed \$125.00 for the expenses necessary for its publication, and the tabling of the remainder of the program as outlined by the Committee on Education, State and National.

It was voted to accept the resignation of Dr. E. Franklin Stone, and the resignation of Dr. J. P. Lobo who has removed to Fall River, Mass.

It was voted to place Dr. Horace N. Williams on the retired list.

Adjourned.

Respectfully submitted,

J. W. LEECH, *Secretary*.

HOUSE OF DELEGATES—NOVEMBER 22, 1934

The regular quarterly meeting of the House of Delegates was held at the Medical Library on Nov. 22, 1934, at 5:25 P. M., with Dr. A. H. Miller, President, presiding.

The Secretary reported upon the minutes of the Council meeting held immediately preceding the meeting of the House of Delegates.

On motion of Dr. Chase, duly seconded, the recommendation of the Council that the House of Delegates approve the Treasurer's Budget was voted.

It was voted to fix the annual dues for the ensuing year at \$10.00.

The recommendation of the Council for the approval of an amount not to exceed \$125.00 for the use of the Committee on Education, State and National, in connection with the public Sunday afternoon lectures during January and February, was voted.

The following letter from Dr. Edward S. Cameron relative to legislation providing for payment of physician's services rendered to hospital patients who subsequently recover damages for the injuries for which the physician has treated him was read by the secretary:

"Frequently doctors who have treated accident cases, which eventually have recovered damages, find great difficulty in collecting for their services. Recently one of our men who had successfully treated a difficult case was unable to collect a cent

of his fee, although the patient recovered damages amounting to seventeen thousand dollars (\$17,000). This is an exaggerated instance, but many cases of this character constantly occur.

"You will find enclosed a letter from a Providence attorney which was unsolicited by me, but was written by him after I had discussed the situation with him.

"Dr. William O. Rice of the Rhode Island Hospital tells me that the Hospital Association, of which he is a member, is going to try to put through the Legislature a measure similar to that suggested by Mr. Semple.

"It would seem that such a movement might be carried through successfully and to the benefit of all concerned if the Hospital Association, the Medical Society, and maybe the Dental Society could combine their efforts.

"It has been suggested that this matter be brought before the House of Delegates through you."

Sincerely yours,

EDWARD S. CAMERON, M.D.

Dr. Walter C. Gordon felt that legislation along these lines should not be confined to remuneration of hospital physicians but should be so framed as to provide that any physician treating cases which subsequently collect damages therefor would be included. Dr. Chase suggested that the matter be referred to the Committee on Legislation, and that this committee make contact with the Hospital Association which is active in furthering such legislation. It was moved and seconded that the matter be referred to the Committee on Legislation, and so voted.

Dr. Taggart, Chairman of the Committee on Classification of Physicians, asked the House of Delegates for instructions as to the extent to which his committee should use its own judgment in classifying physicians. It was pointed out that the Committee on Classification had full authority to classify and publish the result of their classification, and it was suggested that the Committee avail themselves of all sources of information for this purpose including memberships in societies, State and National, and the repute and standing of the individual physician in his community. A vote of confidence in the Committee on Classification was passed.

Adjourned.

Respectfully submitted,

J. W. LEECH, *Secretary*.

COMMENTS UPON MEDICAL TOPICS

By WALFORD W. THEWLIS, M.D.

Finsterer of Vienna, in 529 cases of duodenal ulcer, did a gastric resection in 97.5 per cent, and a gastro-enterostomy in 2.5 per cent, according to Park, *The Jour. Oklahoma State M. Assoc.*, 27:277, 1934. Park had the privilege of seeing von Eiselsberg, eighty years old, do two gastric resections at the old Billroth Clinic. This clinic was the first to do a gastro-enterostomy.

The Radium Institute of Paris, Park found, was handling about 600 cases a year. When radium is used about the jaws, teeth are never extracted for five or more years after the radium is used because of a severe necrosis of bone which develops if extractions are made before that time. They have found that only 20 per cent of enlarged glands associated with carcinoma of the lip are malignant, but that 80 per cent of enlarged glands associated with carcinoma of the tongue are due to extension of the growth. In carcinoma of the lip, if the case is to leave Paris and not be under their supervision, operation is performed. If the patient is to remain in Paris they depend entirely on radium and do not operate. All cases are re-examined yearly.

* * *

Chronic alcoholism and pellagra observed in several cases—an interesting combination.

* * *

Collens et al., *Am. J. Med. Sc.*, 188:528, 1934, treat insulin allergy with histamin phosphate.

* * *

Lemann, *New Orleans Med. and Surg. J.*, 87:92, 1934, gives a simple method for prescribing diets for diabetics, using a measured instead of a weighed diet.

* * *

Eller, *J. A. M. A.*, 100:385, 1933, lists the precancerous dermatoses as follows: senile keratoses, seborrheic keratoses, kraurosis vulvae, moles, radio-dermatitis, leukoplakia, syphilis, occupational keratoderma, lupus vulgaris and tuberculosis cutis, lupus erythematosus, arsenical keratoses, chronic ulcers, cicatrices, papilloma of the tongue, cutaneous horns.

* * *

Corneal ulcer: focus of infection may be in the teeth.

* * *

In searching for foci of infection it is well not to forget to X-ray all areas where teeth have been

removed. Very often a fractured, infected root will be found. It is probably safe to consider all fractured roots as infected. A small root with pin-point abscess may cause great damage in one case; in another, a large infected area may be observed without noticeable absorption. Individual resistance to bacteria is often startling, but so is the sudden vulnerability of certain patients to apparently mild infection.

* * *

It is never safe to diagnose cancer without a biopsy.

* * *

A bacteriological diagnosis of diphtheria is not complete without a virulence test on a guinea pig.

* * *

To diagnose whooping cough, cough plates are useful. A blood smear showing lymphocytosis and an increased white count are quite suggestive.

* * *

Miller and Abbott, *Am. J. Med. Sc.*, 187:595, 1934, give a practical technique for intestinal intubation. The apparatus may be used to secure intestinal contents from, or to inject substances into any area within the upper half of the intestinal tract. It may eventually lead to new methods of diagnosing and treating intestinal lesions.

* * *

Many cases of prolonged fever of unknown origin have been found to be tuberculous two years after the onset.

* * *

W. Osler Abbott, *Penna. M. J.*, June, 1934, gives his experiences with the postural treatment of visceroptosis. No apparatus is used. There is strong evidence that the function of the gastro-intestinal tract has been restored to normal. The same author, in the July, 1934 issue of *Medical Clinics of No. America*, pointed out that postural treatment relieves the symptoms of visceroptosis but has no effect on duodenal stasis.

* * *

Cochrane and Nowak, *New Eng. J. Med.*, 210:935, 1934, report ten cases of acute thyroiditis. The infection may be due to direct trauma or may be secondary to some other focus. It is not common.



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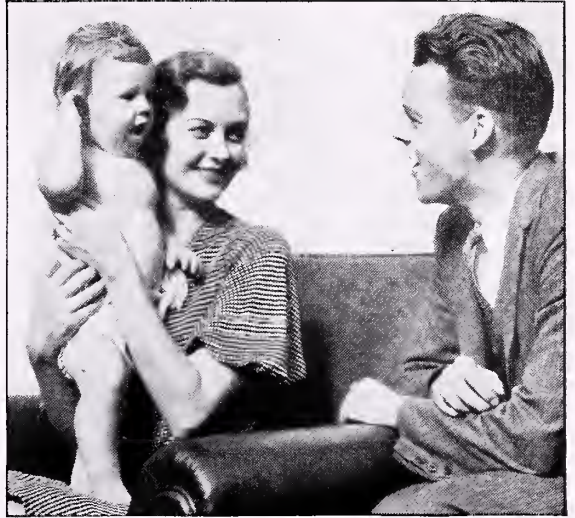
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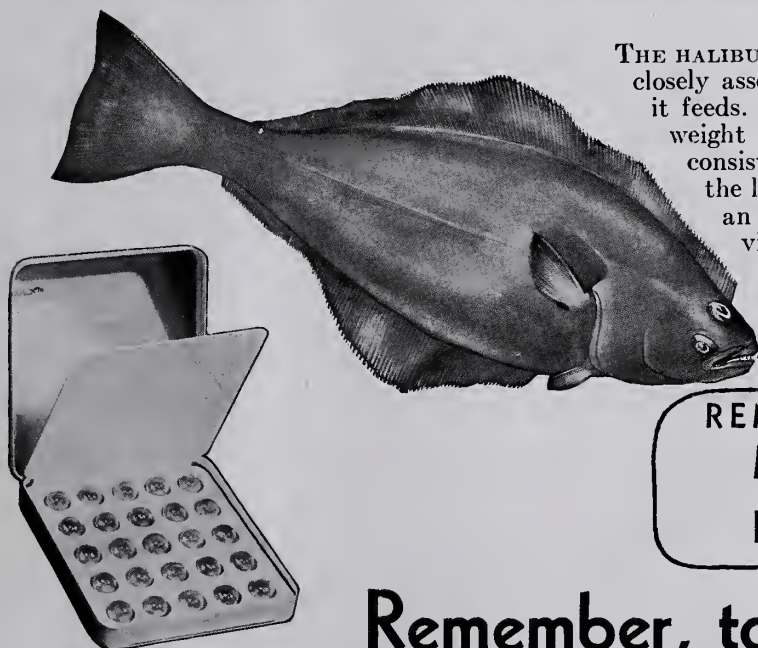
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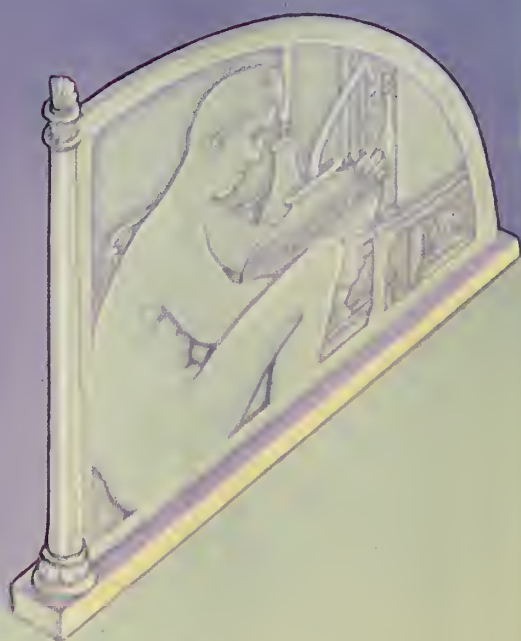
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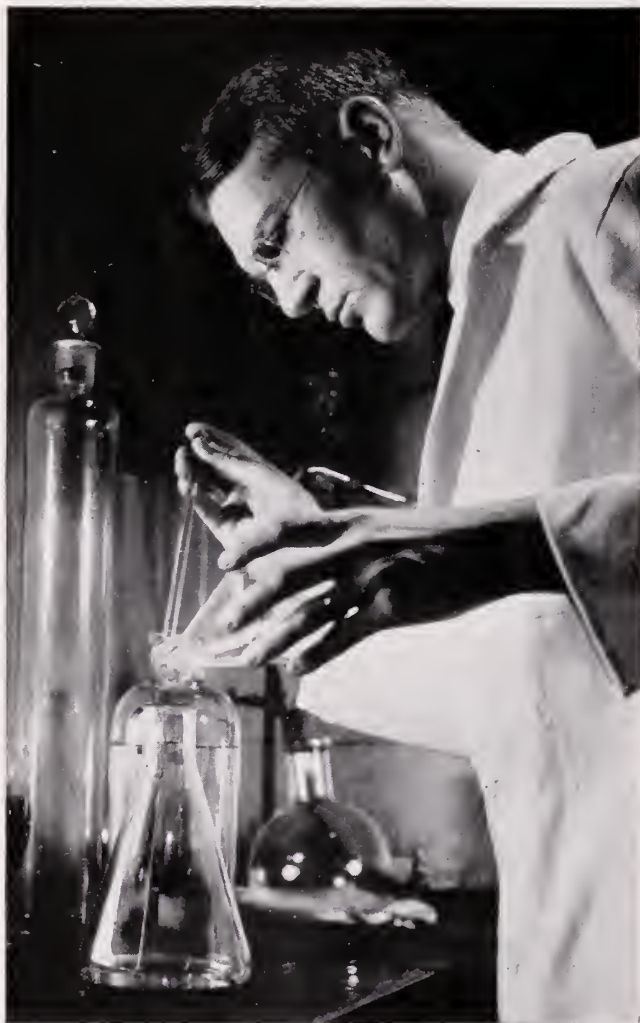
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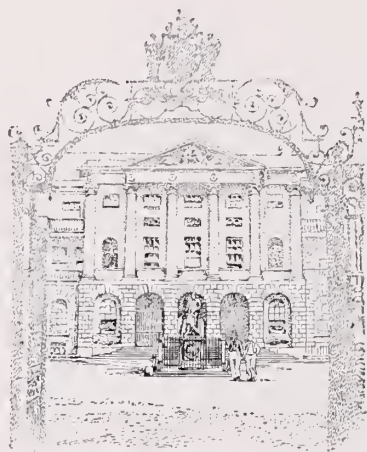
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ORIGINAL ARTICLES

STERILITY: METHOD OF INVESTIGATION AND FINDINGS IN TWENTY-FOUR CASES*

By DR. MILTON GOLDBERGER
224 THAYER STREET, PROVIDENCE, R. I.

Recent contributions to the literature on sterility^{1 2 3 4 5 6 7} emphasize the following facts:

The study of sterility is a study of the mating.

Rarely is a single factor present which is a complete bar to pregnancy.

The causative factors are usually multiple and varied.

An orderly, complete investigation should be carried out properly to evaluate all possible factors.

What are these factors? For conception to occur, the following events must take place. The male must produce live, normal, actively motile spermatozoa of sufficient endurance and in sufficient numbers. He must be capable of depositing them in the vagina of his mate. The secretions here must not be hostile. The relationship between the vagina and cervix should be such as to allow the sperm to reach the cervix. The cervical canal should contain secretions friendly to the sperm and permit easy migration to a normal uterus. The sperm should be allowed to go through to the ostia of the tubes. The ovaries should discharge normal ova, ready for fertilization. The tubes should receive and conduct these to the uterus where the endometrium has been properly prepared for nidation.

Thus some of these factors are mechanical and can easily be evaluated. Others are physiological and must be investigated indirectly. However, any circumstance, mechanical or physiological, which in any way interferes with the above sequence of events is a factor in sterility. The effect of each may not of itself prevent conception, but the sum of the effects of all the factors may.

*Read before the Providence Medical Association, May 7th, 1934.

Of course, certain of these factors such as an absence of gametes, male or female, or closed tubes, act as complete bars to conception and so produce absolute sterility. These cases are relatively rare. Likewise must absolute fertility described by Meaker as "the state of physiological perfection of the mechanism of conception" be rare. The level of fertility in most cases lies between these two extremes. There is a level somewhere between, below which conception is impossible. Meaker calls this the threshold of conception. If the factors preventing conception are of enough importance to depress the level of the mating below this point, sterility will result. If enough of them can be improved to raise the level above this threshold, we may expect conception to occur. This is the basis of the theory of Relative Sterility.⁸

In order to carry out a complete, orderly study of all these factors in both partners, we have adopted record sheets which are completely outlined. Separate records are kept for the husband and wife. Each is seen separately. During the general history and physical, which should be complete and detailed, evidence is sought of physical and mental exhaustion, endocrine disorders, foci of infection, chronic intoxications and infections, nutritional and dietary faults, and any other conditions which may depress the general health of either partner. Clinical observation has shown that the gonads are especially susceptible to any depressed constitutional state and react not only earlier, but also more severely than the other organs of the body.^{9 10 11 12}

In the local investigation of the male a complete genito-urinary history is taken, with particular emphasis on the sex life. The physical should be complete, observing especially anomalies and malformations of the external genitalia, evidence of local disease, and factors which produce local congestion. The prostate is palpated and strippings are collected. These are examined for pus, organisms, and viscosity. The most important part of the examination of the male is the examination of the spermatic fluid. The specimen is evaluated under four headings: number, motility, endurance, and morphology. Each of these factors is of equal importance. An abnormality of any one factor is

of significance. Gross impressions of a drop of spermatic fluid under a microscope are as misleading as a similar drop of unstained blood. We feel that several specimens should be examined as the result of a single examination is at times misleading.^{13 14 15 16 17 18}

In the female, the gynecologic history must be exhaustively studied from all angles, as by this method not only are the function of the pelvic organs judged, but also the presence of endocrine disorders discovered. In addition to the facts of the usual gynecologic investigation, the sexual life from the wife's point of view should always be taken into consideration. The pelvic examination should be carefully done and all evidence of developmental anomalies, of hypoplasia especially, of displacements of pelvic organs, and of other pelvic pathology present or formerly present should be noted.^{19 20 21}

Specimens of cervical secretion are collected and examined for viscosity and microscopic elements. This procedure also insures patency of the cervical canal. The post-coital examination is done in all cases. By means of this test the delivery of spermatozoa to the cervix is checked, the effect of the vaginal and cervical secretions on the spermatozoa evaluated, and migration of the sperm in the cervix followed.²² When migration in the cervix does not seem satisfactory, the effect of the cervical secretion on the spermatozoa may be followed under the microscope as described by Kurzrok and Miller.²³

Tests for tubal patency are done after factors in the lower genital tract have been investigated. Their importance has been well established. The tubes are first tested by insufflation of carbon dioxide gas as described by Rubin.² By this method (with the use of the kymograph) we classify tubes as normally patent, spastic, obstructed, or closed.^{24 25 26}

We are also able to note tubal peristalsis, which recent work suggests is important if conception is to take place.²⁷ In earlier cases X-ray plates after the injection of iodized oil in the uterus and tubes were taken only in those cases in which from the Rubin Test it was felt that there was some pathology.²⁸ We have found it well to use both these methods as the information obtained from one supplements the other.²⁹ Both are therapeutic measures in obstructed tubes.

The laboratory tests include routine complete blood counts, blood chemistries, and Wassermanns. Basal metabolisms are done on all females and in

males when indicated. Sugar tolerance tests are done when indicated.

In reporting the observations in this clinic, it should be explained that the type of patient treated is not very intelligent or co-operative. Further, due to the depression, several patients optimistically decided to postpone treatment. Finally, treatment does take a long time and several patients are still under observation. For these reasons, final results will not be reported. However, to us, our observations have been very interesting and instructive.

If the male is found to produce normal spermatic fluid and is able to deposit it in the region of the cervix, he is considered normal. Of nineteen cases examined, only ten were found normal on this basis. In nine, repeated specimens were not normal because of lowered count, lowered motility or endurance, or an excess of abnormal forms. In four cases no motile spermatozoa were found. Several specimens were examined in all these cases. In five cases the husband was seen but specimens were not examined. Of these, three refused to bring in specimens. All gave a history of gonorrhea. Thus in four of nineteen cases, the male was absolutely sterile. In five, he was partly responsible.

The following were considered contributing factors:

History of gonorrhea	5
Syphilis	1
Prostatitis	6
Obesity	2
Chronic tonsillitis	1
Inguinal hernia	2
Varicocoele	1
Premature ejaculation	1
Undescended testicles	1

Twenty-four women were seen enough times to get the preliminary work done. Five were dropped from the clinic because of a failure to co-operate either on their part or their husbands. In only one was no contributing factor found. Two patients had amenorrhea of long standing. Another had a bicornuate uterus with closed tubes. Two others had closed tubes. These were considered cases of absolute sterility. All the others had one or more factors present which were considered as contributing to the sterile marriage. The average number of factors was four. Some were of such a nature that conception was very improbable. Others were of minor importance. The only chance for a successful result in these cases lies in the correction of those factors amenable to correction so that the

level of fertility of the couple may be raised above the level of conception.

The following are the factors found which were considered as contributing to the sterility:

Endocervicitis or cervical obstruction.....	15
Hypoplasia of the pelvic organs.....	10
Oligomenorrhea	9
Obesity	9
Hypothyroid	7
Retroversion	5
No sperm migration	4
Closed tubes	3
Chronic tonsillitis	3
Dyspareunia and frigidity	3
Dietary faults	3
Amenorrhea	2
Previous salpingectomy and oophorectomy	2
Very poor sexual hygiene.....	2
Trichomona vaginalis vaginitis.....	2
Poor teeth	2
Hyperthyroid	2
Pyosalpinx	1
Hyperplasia of the endometrium	1
Bilateral cystic ovaries	1
Prolapsed adherent ovary.....	1
Obstructed tubes	1
Bicornuate uterus	1
Hypertrophied elongated cervix.....	1
Hyperplasia of the endocervical mucosa	1

Thirteen of the twenty-four couples seen had received previous treatment. In only four of these had the husband been seen. In one of these cases he was pronounced satisfactory without examination of his spermatic fluid. Three women had had dilation and curettage. One has never menstruated since. The husbands had never been examined. The patient with the bicornuate uterus and closed tubes had received tampon treatments for two years. One woman whose husband had never been examined and was later found to be absolutely sterile had received local treatment for several years. Another patient had received injections of various endocrine products for over a year and was discharged as a hopeless case. Her husband had never been seen and her tubes had never been tested for patency. I mention these cases merely to emphasize that one can never tell what the most important factor is unless a complete examination of both husband and wife is done.

Summary

This paper has really been a summary. I have attempted to present an outline of the procedures

followed in the sterility clinic at the Miriam Hospital. I have also outlined our observations on twenty-four cases seen and investigated to varying degrees. Forty-seven percent of the males were found to be at least partially responsible. Twenty-one percent were found to be absolutely sterile. In the females we found multiple factors present. The average was four. Twenty-six percent were found to be absolutely sterile. The importance of complete systematic investigation has been emphasized.

I wish at this time to express my thanks to Dr. Ira H. Noyes, at whose suggestion the clinic was started and under whose direction the work has been carried out, and to Dr. Isaac Gerber, who not only has advised us in our X-ray work, but who has also permitted us to use his private equipment.

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IMPORTANT

REPORT OF THE REFERENCE COMMITTEE, SPECIAL SESSION HOUSE OF DELEGATES

By GUY W. WELLS, Delegate

February 15 and 16, 1935

Your reference committee, believing that regimentation of the medical profession and lay control of medical practice will be fatal to medical progress and inevitably lower the quality of medical service now available to the American people, condemns unreservedly all propaganda, legislation or political manipulation leading to these ends.

Your reference committee has given careful consideration to the record by the Board of Trustees of the previous actions of this House of Delegates concerning sickness insurance and organized medical care and to the account of the measures taken by the Board of Trustees and the officials of the Asso-

ciation to present this point of view to the government and to the people

The American Medical Association, embracing in its membership some 100,000 of the physicians of the United States, is by far the largest medical organization in this country. The House of Delegates would point out that the American Medical Association is the only medical organization open to all reputable physicians and established on truly democratic principles, and that this House of Delegates, as constituted, is the only body truly representative of the medical profession.

The House of Delegates commends the Board of Trustees and the officers of the Association for their efforts in presenting correctly, maintaining and promoting the policies and principles, heretofore established by this body

The primary considerations of the physicians constituting the American Medical Association are the welfare of the people, the preservation of their health and their care in sickness, the advancement of medical science, the improvement of medical care, and the provision of adequate medical service to all the people. These physicians are the only body in the United States qualified by experience and training to guide and suitably control plans for the provision of medical care. The fact that the quality of medical service to the people of the United States today is better than that of any other country in the world is evidence of the extent to which the American medical profession has fulfilled its obligations.

The House of Delegates of the American Medical Association reaffirms its opposition to all forms of compulsory sickness insurance whether administered by the Federal government, the governments of the individual states or by any individual industry, community or similar body. It reaffirms, also, its encouragement to local medical organizations to establish plans for the provision of adequate medical service for all of the people, adjusted to present economic conditions, by voluntary budgeting to meet the costs of illness.

The medical profession has given of its utmost to the American people, not only in this but in every previous emergency. It has never required compulsion but has always volunteered its services in anticipation of their need.

The Committee on Economic Security, appointed by the President of the United States, presented in a preliminary report to Congress on January 17

eleven principles which that Committee considered fundamental to a proposed plan of compulsory health insurance. The House of Delegates is glad to recognize that some of the fundamental considerations for an adequate, reliable and safe medical service established by the medical profession through years of experience in medical practice are found by the Committee to be essential to its own plans.

However, so many inconsistencies and incompatibilities are apparent in the report of the President's Committee on Economic Security thus far presented that many more facts and details are necessary for a proper consideration.

The House of Delegates recognizes the necessity under conditions of emergency for federal aid in meeting basic needs of the indigent; it deprecates, however, any provision whereby federal subsidies for medical services are administered and controlled by a lay bureau. While the desirability of adequate medical service for crippled children and for the preservation of child and maternal health is beyond question, the House of Delegates deplores and protests those sections of the Wagner Bill which place in the Children's Bureau of the Department of Labor the responsibility for the administration of funds for these purposes.

The House of Delegates condemns as pernicious that section of the Wagner Bill which creates a social insurance board without specification of the character of its personnel to administer functions essentially medical in character and demanding technical knowledge not available to those without medical training.

The so-called Epstein Bill, proposed by the American Association for Social Security now being promoted with propaganda in the individual states, is a vicious, deceptive, dangerous and demoralizing measure. An analysis of this proposed law has been published by the American Medical Association. It introduces such hazardous principles as multiple taxation, inordinate costs, extravagant administration and an inevitable trend toward social and financial bankruptcy.

The committee has studied this matter from a broad standpoint, considering many plans submitted by the Bureau of Medical Economics as well as those conveyed in resolutions from the floor of the House of Delegates. It reiterates the fact that there is no model plan which is a cure-all for the social ills any more than there is a panacea for the phys-

ical ills that affect mankind. There are now more than 150 plans for medical service undergoing study and trial in various communities in the United States. Your Bureau of Medical Economics has studied these plans and is now ready and willing to advise medical societies in the creation and operation of such plans. The plans developed by the Bureau of Medical Economics will serve the people of the community in the prevention of disease, the maintenance of health and with curative care in illness. They must at the same time meet apparent economic factors and protect the public welfare by safeguarding to the medical profession the functions of control of medical standards and the continued advancement of medical educational requirements. They must not destroy that initiative which is vital to the highest type of medical service.

In the establishment of all such plans, county medical societies must be guided by the ten fundamental principles adopted by this House of Delegates at the annual session in June, 1934. The House of Delegates would again emphasize particularly the necessity for separate provision for hospital facilities and the physician's services. Payment for medical service, whether by prepayment plans, installment purchase or so-called voluntary hospital insurance plans, must hold, as absolutely distinct, remuneration for hospital care on the one hand and the individual, personal, scientific ministrations of the physician on the other.

Your Reference Committee suggests that the Board of Trustees request the Bureau of Medical Economics to study further the plans now existing and such as may develop, with special reference to the way in which they meet the needs of their communities, to the costs of operation, to the quality of service rendered, the effects of such service on the medical profession, the applicability to rural, village, urban and industrial population, and to develop for presentation at the meeting of the American Medical Association in June model skeleton plans adapted to the needs of populations of various types.

(Signed)

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EDITORIALS

UNEMPLOYMENT MEDICAL RELIEF

The plan of the Providence Medical Association for unemployment medical relief has been in operation for a year. During this period the unemployed have had good care, the physicians have been paid for this care, the hospitals and private charity have been relieved of a considerable burden, and the whole scheme has been very greatly influenced and controlled by the committee of physicians. The Department of Public Aid has shown a splendid spirit

of co-operation and deserves great credit for its wisdom in handling the whole problem.

The situation has a deeper significance than appears at first sight. This care of the unemployed sick is the first effort of organized medicine as a body in Providence to direct medical care. By it will be judged our wisdom and effectiveness in such a capacity. If the Providence physicians continue to do a good job in this work, the city and state governments and the public in general will have an added respect for our advice in connection with the different plans for medical care as they come up for consideration.

A GOLDEN BUSINESS OPPORTUNITY

It is surprising that a community as large as greater Providence and Rhode Island has no adequate source of medical and surgical supplies. The few so-called "Surgical Supply Houses" are merely side lines and offshoots of drug and paint or chemical supply stores, and the service which they render the Medical Profession is notoriously poor. Even the simplest instrument or apparatus cannot be purchased except by catalogue and the stocks from which a buyer may choose are nil.

It would appear that an ambitious man with a little capital or backing, a good location, easily reached, an ample supply of that good American virtue "Hustle," and above all a real effort to serve would eventually reap a handsome harvest of many high grade customers of good credit habits.

Doctors are progressive. They are generous buyers of goods that will help practice or patients. They are conscientious in paying bills and maintaining a reputation for credit, but their mode of living demands prompt and efficient service from those with whom they trade. There is plenty of room for this sort of business, and service and accommodation alone will build it, in spite of the negligible half-hearted competition that might be offered. One need only witness the meteoric success of a well-known gasoline station near the large group of doctors' offices which has been built solely on the basis of prompt, cheerful and dependable service, backed by a realization of the necessity of it to busy physicians.

Let's have a *real* Physicians' Supply House in Providence, manned by an intelligent, constructively helpful personnel whose sole aim is *real* service, and watch the rise of a flourishing, profitable business. If Rhode Island talent does not grasp this opportunity, someone else will, and the field is fertile save that it needs convincing proof of 100% service.

 REPORT OF THE DELEGATES TO THE
CLINICAL CONGRESS OF THE
CONNECTICUT MEDICAL SOCIETY

By DRs. D. F. GRAY, GEO. S. MATHEWS
and CHAS. F. DEACON

The Clinical Congress of the Connecticut State Medical Society is held in New Haven on Tuesday, Wednesday and Thursday in the middle of September each year. From 10:00 A. M. to 1:00 P. M.

is devoted to lectures, and from 2:30 to 5:00 P. M. they held demonstrations and round table conferences. On Tuesday and Wednesday at 8:00 P. M. there were lectures by outstanding visitors.

In past years there has been in attendance about three hundred, this year about six hundred.

The first day at the last meeting was devoted to Arthritis and related conditions. Dr. George E. Bennett, Associate Professor of Orthopedic Surgery, Johns Hopkins University School of Medicine, spoke on the symptomatology diagnosis and treatment of Lumbosacral and Sacroiliac strain.

Dr. Russell L. Cecil, Professor of Clinical Medicine, Cornell University Medical College, had as his subject "The Treatment of Arthritis from the Clinical Standpoint." Dr. Robert B. Osgood, Emeritus Professor of Orthopedic Surgery, Harvard University, lectured on "The Etiologic Theories and Therapeutic Trends in Chronic Arthritis."

Dr. Frank R. Ober, Clinical Professor of Orthopedic Surgery, Harvard University Medical School, lectured on the diagnosis and treatment of some of the common disabilities causing pain in the upper extremities.

The crumbs of knowledge we brought away with us might be briefly stated as follows. The X-ray is important in differential diagnosis. The sedimentation test is high in the rheumatoid and low in the hypertrophic type. The low carbohydrate diet is not necessary except for reduction of weight which must be done if the patient is overweight. A high vitamin diet, especially if there is evidence that a faulty diet has impaired the patient's resistance. If vaccines are used, do not give too much and get reactions. 25,000 to 50,000 Neosalvarsan and Typhoid vaccine in combination, Dr. Cecil says, give results. Thelin in Rheumatism of the Menopause. Physiotherapy, Hydrotherapy and Psychotherapy, and above all, rest, were recommended. In the afternoon Dr. Denis S. O'Connor of New Haven presented cases representing the different types of Arthritis from an etiologic standpoint.

Dr. Edwin Pyle of Waterbury gave an anatomical and pathological demonstration of shoulder structure and conditions. Dr. Geo. W. Hawley of Bridgeport presented motion pictures and practical demonstrations of his new Hawley Fracture and X-ray Table. Dr. Paul Swett of Hartford gave a practical demonstration of the clinical aspects of back pain. And at 4:30 Dr. Daniel C. Patterson read a paper on Hugh Owen Thomas in memory of the One Hundredth Anniversary of his birth. In

the evening Dr. Harrison S. Martland, chief medical examiner of Essex County, New Jersey, and Associate Professor of Forensic Medicine, New York University, spoke on "The Problem of Sudden Death from the Pathological Standpoint" based on autopsy findings in 1,000 cases of sudden death from natural causes and summary of the lesions most commonly encountered in sudden, unexpected death, with lantern slide demonstrations.

Wednesday forenoon, Dr. Howard Fox, Professor of Dermatology and Syphilology, New York University, spoke of the diagnosis and treatment of some common skin diseases and gave a lantern slide demonstration. Dr. Francis G. Blake, Sterling Professor of Medicine, Yale University School of Medicine, Physician-in-Chief, New Haven Hospital, presented "The Treatment of Pneumococcal Lobar Pneumonia," with special consideration of the use of Antipneumococcus serum and artificial Pneumothorax. He said: "As in the treatment of Diphtheria, it is desirable to give as much serum as possible at the first dose. Up to 100,000 units may be given at once, subject always to the precautions necessary to prevent untoward reactions. Every patient should be tested for sensitivity to Horse serum. The injections should be made slowly, and adrenalin should be at hand." The effect of artificial pneumothorax was observed in a series of 25 cases treated at the New Haven Hospital last winter. Three groups were studied: (1) cases without pre-existing fibrous pleural adhesions; (2) cases *with* pre-existing fibrous pleural adhesions; and (3) four late septicemic cases. In the first group, all showed evidence of improvement, as indicated by comparison of their temperature charts with those of the second group. In the second group, there was no apparent shortening of the course of the disease. In the third, no benefit was observed. No serum was given to any of these patients. It was found that as the inter-pleural pressure fell and became negative again after treatment, a relapse was likely to occur, especially if the antibodies had not yet appeared in the serum. The usual procedure was therefore changed and more frequent treatments were given, so that the pressure was raised and maintained at a positive level. As much as 1,300 c.c. of air was often given at the first treatment. In most cases the patient's pain ceased, the appearance of toxemia was diminished, and the patient's attitude improved. The improvement was often quite dramatic.

This was followed by a paper on "Gonorrhoea in the Male and Its Treatment" by Dr. Percy S. Pelouse, Assistant Professor of Urology, University of Pennsylvania School of Medicine.

Dr. Oscar M. Schloss, Professor of Clinical Pediatrics, Cornell University Medical College, gave as his subject "Pathogenesis of Pyuria in Early Life." In the afternoon temperature charts and pathological specimens of malformations having to do with Pyelitis in children were presented by Dr. Oscar M. Schloss of New York, Dr. Howard W. Brayton of Hartford, Dr. J. Harold Root of Waterbury, and Dr. Oliver L. Stringfield of Stanford.

Dr. Percy S. Pelouse discussed the national public health program for the control of gonorrhoea, and illustrated the social and economic factors and modern methods of treatment, including acute and chronic phases and complications.

Dr. Francis G. Blake gave a demonstration illustrating the importance of predisposing causes in the morbidity of pneumonia and the technique of serum and artificial pneumothorax. Serial roentgenograms on the patients treated by means of artificial pneumothorax were shown and their significance discussed. In another room a demonstration of the more common skin diseases by Dr. Ralph E. McDonnell of New Haven, and in an adjoining room the Patch test method of determining the cause of contact (Industrial) Dermatitis by Dr. E. Miles Standish of Hartford and Dr. Ellwood C. Weise of Bridgeport.

Dr. Maurice J. Strauss of New Haven discussed Lymphogranuloma Inguinale.

In the autopsy room the staff in pathology gave demonstrations of problems of sudden death showing anatomical specimens illustrating organic lesions found in individuals where death occurs suddenly, other than in conditions associated with violence. Then at 4:30 a social hour, when county secretaries acted as hosts to introduce members of their societies to speakers and other guests.

At 8:00 P. M. Dr. C. Macfie Campbell, Professor of Psychiatry, Harvard University, gave a lecture on "The Importance of the Consideration of the Personality in General Practice." In this talk he dealt at length with the management of the neurasthenic patient, and I hoped he might touch on a remark made by Dr. F. Lewellys Barker of Johns Hopkins who, two years ago, at the Connecticut Medical Congress, delivered an address on "Functional Neuroses," and in which he said he

was not at all convinced that this condition was dependent upon a mental basis. He thinks the basis is chemical or metabolic. This is an important matter in gastro-enterology because 65% of these patients are neurasthenic and a large percentage of them get well on gastro-enteric treatment combined with a little psychotherapy.

Thursday morning, Dr. Eugene Kahn, Sterling Professor of Psychiatry and Mental Hygiene, Yale University School of Medicine, addressed us and took as his subject "Psychoses Complicating Other Diseases." Next, Dr. Stanhope Bayne-Jones, Professor of Bacteriology, Yale School of Medicine, spoke on "Prophylactic Vaccinations." Dr. Max A. Goldzreher, Endocrinologist, Gouverneur Hospital, New York, discussed the diagnosis of the ordinary endocrine disorders.

Dr. Alexander B. Sutman, Fellow in Medicine, College of Physicians and Surgeons, New York, spoke on the therapeutic uses of Parathormone.

Dr. Carl H. Green, Associate in Medicine, New York Post-Graduate Medical School, told us of the therapeutic use of the Cortical Hormone of the Suprarenal Gland. Dr. John Rock, Assistant in Obstetrics and Gynecology, Harvard School of Medicine, told of the useful endocrine preparations in gynecology. At the demonstration and round table conferences in the afternoon, the Psychiatric Staff, New Haven, gave a clinical presentation of patients to illustrate the papers of Dr. Campbell and Dr. Kahn. Dr. John Rock conducted a round table discussion to consider the practical value of various endocrine preparations on the market and methods for administering those of proven usefulness. Dr. John P. Peters of New Haven gave a demonstration of Hyperparathyroidism and showed X-rays of bones and laboratory findings in various cases of Hyperparathyroidism in order to show the differential diagnosis between Hyperparathyroidism, Basophilic adenoma of the pituitary, and general Myelomatosis. Dr. Stanhope Bayne-Jones of New Haven gave a demonstration of the preparation and effect of some of the materials used for Prophylactic Vaccinations.

Dr. Harold E. Himwich of New Haven gave a demonstration of experimental dogs relieved of diabetes by removal of the pituitary gland. And as the final exercise of the Congress, Dr. Edgar Allen of New Haven demonstrated the various reactions of general tissues to sex hormones of the anterior pituitary, ovary and testis.

OBITUARY

DOCTOR EUGENE PRIDE KING
1854-1934

Dr. Eugene Pride King, the son of Dr. Absalon Pride King and Celia Ann (Hendrick) King, was born in Apponaug, in the town of Warwick, November 5, 1854; he died in Providence, September 7, 1934.

His father, who had been for a few years a physician in Apponaug, removed to Providence in 1855 and continued in practice there until his death in October, 1868.

After the death of his father, Eugene continued for two years in the Classical High School in Providence, and after two years at the Military Academy at Cheshire, Conn., he entered Brown University in 1872 and was graduated with the A.B. degree in 1876, and in 1879 received the A.M. He studied medicine at Jefferson Medical College in Philadelphia, and in 1880 received the M.D. at that institution.

Returning to Providence, Dr. King was duly elected a Fellow of the Rhode Island Medical Society in September, 1880, and two months later became a member of the Providence Medical Association.

Dr. King did not read any formal papers before the Society, but memorable now to us, as his contribution to the literary treasures of the Society, is his carefully prepared and charmingly told story of "DOCTOR DAN KING AND HIS SONS," published with the obituaries, in the Transactions, Vol. IV, pp. 344-351.

Doctor Dan King, three of his sons, and three of his grandsons were Fellows of the Rhode Island Medical Society—seven of the same family. And of the seven, Dr. E. P. King, two of his uncles and one of his cousins were members of the Providence Medical Association.

With the death of our associate all have passed away.

Dr. King's life work as a physician was in connection with the Department of Health of the City of Providence—first as occasionally employed by Doctor E. M. Snow, the Superintendent of Health, and later by Doctor C. V. Chapin, who became Superintendent in 1884.

He continued in the department in a temporary capacity until 1892, when he was employed perma-

nently as Medical Inspector, succeeding Dr. Gardner T. Swarts.

In the nearly 50 years that Dr. King was connected with the Department of Health there have been very few cases of smallpox in Providence; that the few that did occur were not more often followed by others was undoubtedly due to Dr. King's faithfulness to duty. He promptly visited every person that had smallpox, or had symptoms of it that the attending physician had reported as suspicious. Without waiting to clear up the diagnosis, he made careful notes of all persons who had been in the house where the patient was, or who had been with him where he worked, that they all might be vaccinated immediately. And the few that took the disease had already contracted it.

In 1914 Dr. Charles V. Chapin, head of the Department of Health, appointed Dr. King Deputy Superintendent of Health, and Deputy City Registrar, and he continued in office as Medical Inspector.

His service was practically contemporaneous with that of Doctor Chapin, who resigned January 1, 1932.

Doctor King resigned in December of that same year.

He was not a member of social clubs or of any fraternal organizations, but from 1910 he was a member of the Rhode Island Historical Society. He served for many years as a member of the Publication Committee of the Society and was a member of that committee when he died. From time to time he presented to the Society various books of Rhode Island interest.

Doctor King was married in 1921 to Miss Jessie Augusta Shurtleff, who survives him.

His long and conscientious service entitles him to the gratitude of the residents of the City of Providence.

This was expressed by the editorial in the *Evening Bulletin* December 31, 1932:

"Dr. King is not widely known. He is a quiet man and he has worked quietly for the 47 years that he has been in the Health Department. But he has worked with a devotion and complete disregard of self realized only by those whose duties have, at one time or another, given them an opportunity to observe him.

"Probably no one better than the policemen who guard the City Hall during the time that the building is closed know how many hours a day and a

week Dr. King has put in at his labors. 'Five o'clock' has never had any meaning for him. The time to quit was when the work was done. At any hour of the night and on Sundays and holidays when the municipal building was deserted, his tall, stooped figure was usually to be seen heading for, or emerging from the corner of the Health Department offices which was his. Especially in periods when contagious disease in one shape or another was abroad in epidemic form he has seemed never to sleep.

"Such loyalty which goes far beyond the call of duty is a fine and inspiring thing. He symbolizes a concept of public service that no community can see pass without genuine regret."

Dr. King was not only an eminent physician and public health officer but he was also a broadminded, versatile gentleman of the old school. He was skilled in the classics, both Greek and Latin, and years after his graduation from college his acquaintance with the Latin language made it easy for him to acquire a knowledge of Italian, and he not only translated a play written by D'Annunzio, the poet and politician, but also for years carried on a correspondence with an Italian nobleman, the Marquis of Santa Mustiola, whose palace is in the Abruzzi.

He inherited a talent for music from both his mother and his father and was a student of the piano from boyhood. He played the piano proficiently and the organ to some extent. He took rare pleasure from good concerts both vocal and instrumental, and was a frequent attendant at all good local musical events.

Doctor Chapin's tribute in brief:

"I said both to Doctor Scammon and to Doctor Smith when they came to be my assistants,—'*Doctor King is a Cultured Christian Gentleman.*'"

"He was of a very kindly disposition; constantly putting himself out to do favors for people.

"His job was to follow up cases of contagious disease, and until the job was done there were no office hours for him.

"He took great pains to explain things to people and though they were mad when they came in they never were mad when they went out.

"He was an orderly man. At the office he was constantly striving to arrange documents and data so they might be always accessible; this was of great help to me in using the records."

Especially impressive was the presence of so many physicians and the large assembly of friends

at the funeral services at All Saints Memorial Church, of which Doctor King was a devoted member.

The Providence Medical Association may well adopt as its own the tribute quoted from Doctor Chapin:

DOCTOR EUGENE PRIDE KING
*A Cultured Christian Gentleman;
a friendly man
and a faithful public servant.*

ELLEN A. STONE,
CHAS. H. LEONARD,
Committee.

IN MEMORIAM

GEORGE F. KEENE, M.D.

First Medical Superintendent
State Hospital for Mental Diseases
Howard, Rhode Island
Died March, 1905

He is dead! Three decades gone.
And I who loved him as a son,
And leaned upon him,
And, in whose arms he died,
Pen these poor lines and set them forth
A crude and feeble testimonial to his worth.

He was a sturdy oak
Amid the brethren of his day.
Towering high he had a clearer view
Than many, of the ills of men
And they learned to listen when he spoke.

His was the task,
To break the shackles and the rod,
And lift them from the backs and limbs,
Of those poor, demented, witless children
Of his God. Who sequestered
And forgot, saw in his soul
The Healing Art, and the "Intermediary"
To replace them back into a normal world.

His was the task of pioneer,
In this his native State
To placate, and to educate,
The layman's mind to see
That "broken minds" were not
Always "possessed of devils" incarnate,
And "justly deserving of their lot."

He taught that Medicine,
—That Sacred and soul-stirring Art
That thousands seek, and ask
That it shall be given!—
Was to his flock, and him
The benediction and the haven,
And the solace of their heart!
And this he gave, instead
Of having stern-faced men, and gyves
To awe, and bind them, and to stress their lives.

Awake! Restraining the lyre!
Blow on the embers of the dying fire!
So that the sound, and burning glow
Shall awake in us desire, to know
The worth of worthy men!
And not to say when they have gone,
"Farewell forever," and "Amen."

HENRY A. JONES of Cranston

SOCIETIES

PROVIDENCE MEDICAL SOCIETY

The annual meeting of the Providence Medical Association was held at the Medical Library, 106 Francis Street, Monday evening, January 7, 1935, at 8:50 o'clock. The records of the last meeting were read and approved. The annual reports of the Secretary, Treasurer, Standing Committee and Reading Room Committee were read, approved and ordered filed.

The President, Dr. Charles F. Gormly, read his annual address on the "Prevention of Malpractice," a subject with which he has had opportunity to become unusually familiar. The first recorded case he had found was in 1767 and the first in America, 1794. It is hard to get data, as many of these suits are kept secret, but there are estimated to be 25,000 in the United States in five years. Once started, there is no way to remove them from the courts without legal settlement and their menace may hang over a doctor's estate after death. Liability may be wilful or negligent, but it is practically always the latter. Bad results are not necessarily construed as negligence, only ordinary skill being required, but the specialist is forced to consider this. Gratuitous services are not exempt from this menace. He felt that these cases are usually suggested by indiscriminate criticism from a fellow practitioner. He suggested that all these suits

should be investigated by the elders of a medical society, as lawyers would usually not press suits when confronted by the united front of responsible medical men. He then suggested the following amendment to the By-Laws to be voted on at the next meeting after a copy had been sent to the members.

Dr. William P. Buffum having been elected President, he was escorted to the chair by Drs. Leech and Buffum. The remaining officers and committees were then elected as follows:

Nomination of Officers

In accordance with Article 1, Section 6, of the By-Laws the Standing Committee have made the following nominations for officers and committees for the year 1935:

For President—William P. Buffum, M.D.

For Vice-President—William S. Streker, M.D.

For Secretary—Peter Pineo Chase, M.D.

For Treasurer—Charles F. Deacon, M.D.

For Member of the Standing Committee for five years—Charles F. Gormly, M.D.

For Trustee of the Rhode Island Medical Library for one year—Arthur H. Ruggles, M.D.

For Reading Room Committee—George S. Mathews, M.D.; Elihu Wing, M.D.; Guy W. Wells, M.D.

For Delegates to the House of Delegates of the Rhode Island Medical Society—P. C. Cook, M.D.; R. R. Baldridge, M.D.; C. C. Dustin, M.D.; E. A. Sharp, M.D.; J. G. Walsh, M.D.; C. H. Woodmansee, M.D.; R. H. Whitmarsh, M.D.; V. J. Oddo, M.D.; W. Hindle, M.D.; C. W. Skelton, M.D.; P. P. Chase, M.D.; L. C. Happ, M.D.; W. C. Gordon, M.D.; W. M. Muncy, M.D.; J. J. McCaffrey, M.D.; P. Conca, M.D.; C. B. Leech, M.D.; A. J. Pedorella, M.D.; J. M. Beardsley, M.D.; C. R. Doten, M.D.; H. J. Gallagher, M.D.; N. A. Bolotow, M.D.; J. Franklin, M.D.; C. Bradley, M.D.

For Councillor for two years—Lucius C. Kingman, M.D.

It was voted that the Publicity and Public Relations Committee be amalgamated into a committee of five called the Public Relations Committee. The President then appointed the following committees:

Collation—Dr. Joseph C. Johnston and Dr. George J. Conde.

Public Relations—Drs. E. A. McLaughlin, Chairman; F. V. Garside, Carl Sawyer, E. S. Cameron and A. M. Burgess.

Unemployment Relief—Drs. W. S. Streker, J. W. Leech, B. H. Buxton, Rocco Abbatte and Guy Wells.

Milk Commission for five years—Dr. Banice Feinberg.

Committee on Improvements to the Meeting Place—Dr. Charles F. Gormly to take the place of Dr. Buffum.

Dr. Kingman then reported for the Public Relations Committee and presented the following motions which were voted:

MOVED THAT: The Providence Medical Association recommends to the Rhode Island Medical Society the consideration of the following in relation to the Workmen's Compensation Act:

1. Proper remuneration of hospitals to cover hospital cost.
2. Proper physicians' fees for long continuing cases.
3. Proper fees, aside from those of attending physicians, for X-ray and other laboratory work.
4. Inclusion of industrial diseases under the Act.
5. Small claims to be referred to the Small Claims Court instead of the Superior Court.

MOVED THAT: The Providence Medical Association recommends to the Rhode Island Medical Society the passage of an Act by the State Legislature providing, except in Workmen's Compensation Act cases, that in the event of recovery of damages by any individual as compensation for an accident the medical and hospital expenses incurred as result of said accident shall constitute a lien on said recovery.

L. C. KINGMAN, *Chairman,*
Public Relations Committee.

Dr. Chafee reported for the Blood Donors Committee, Dr. Bates for the Milk Commission, and Dr. Buffum for the Unemployment Relief Committee. These were ordered placed on file.

The following were elected to membership: Drs. Elizabeth H. Sumberg, Elihu Saklad, George R. Mankis, Joseph C. Kent and Richard E. Allen.

An invitation to a symposium on infectious mononucleosis at the State Hospital was read.

It was voted to contribute \$450 for rent of building, \$250 for the reading room, \$250 for binding periodicals and that the annual dues be \$5.00.

At the suggestion of Dr. Skelton and after considerable discussion the following motion was passed:

"RESOLVED: that in the formation of the examining boards under the proposed revision of the department of public health the medical profession should have representation on each board." The secretary was instructed to send this resolution to Governor Green.

Dr. Skelton called attention to the advertisement of Phillip Morris Cigarettes in the RHODE ISLAND MEDICAL JOURNAL and urged all the members to send for sample packages.

Dr. Gormly moved that the proposed amendment to the By-Laws which he had read in his address should be mailed to members with the announcement of the next meeting and voted upon at that meeting. On the motion of Dr. Leech the following resolution was adopted and the secretary instructed to send copies to the mayor, board of aldermen and

common council: "RESOLVED: that the office of Superintendent of Health of the City of Providence should be filled by a physician, who, by long training and experience in public health work, is qualified for this highly specialized position.

The meeting adjourned at 11:05 P. M. Attendance 149. Collation was served.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY

A meeting of the Rhode Island Ophthalmological and Otolological Society was held at the Peters House Wednesday, February 13, at 8:30 P. M. Election of officers.

GORDON J. McCURDY, M.D.,
Secretary.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

BOOK REVIEWS

MENTAL HEALTH, by Arthur H. Ruggles, M.D.

Publisher, The Williams & Wilkins Company.

It is a pleasure to read such a refreshing and accurate although condensed account of the progress, past, present, and future, of the understanding of mental disease. The past, when reviewed, inclines one to realize the important steps which have been made; while the future is looked forward to with considerable anticipation with its tremendous and interesting task of learning and doing more both in the prevention and treatment of the problem of mental health.

Dr. Ruggles is a person most qualified to write such a book. He begins by stating the earliest knowledge concerning attitudes toward the mind and its problems, followed by an interesting account of the changes in attitude which took place through the ensuing generations, from punishment, mutilation and deprivation to the respectful and scientific treatment of the present day, from the dungeons and chains of the past to the modern and well-equipped mental hospital with freedom from restraint.

As far as the future of mental health is concerned, we are warned first not to trip over that old stumbling-block, overconfidence. Much progress has been made, it is true, but there is a great deal still to be done. There will continue to be numerous obstacles and resistances to overcome, and man's mind is still something of a mystery. The progress of medicine in brain surgery and other physical aspects has laid a partial foundation for our future work, and courage and confidence will assist us to greater accomplishments.

Undoubtedly the most important advances in mental health have been in the improvement of hospitalization and in the treatment of children and with the basis that has been formed, we may reasonably aspire to certain results. The voluntary entrance of patients is one of the fondest hopes; the time when old superstitions and prejudices will be cast aside and mental hospitals will be regarded by all as something more than merely custodial institutions. For chronic patients requiring custodial care, colonization and boarding homes may possibly solve the problem. Closer attention will undoubtedly be given to physical factors. Those working with mental patients will be given even more highly specialized training. We may also look for deeper research and the earlier recognition of mental maladjustment and incipient mental disease. There will have to be increased funds for preventive treatment.

And then there is the item of eugenics. Certainly we must pay much attention to breeding if we hope for an improved civilization. Next, the expectant mother deserves psychic preparation as well as physical, and the whole problem of mental health of the child after birth must be given close consideration. Schools must watch the mental health of students as carefully as they do the physical side, and must help in an endeavor to bring about a balance between intellect and emotion. Medical schools must give more training to every student in this important subject so that each doctor will be equipped to handle what problems come his way.

The psychoanalytic approach to the treatment of psychoneurosis will likely continue in its forward strides, as will the increased attention to the glands of internal secretion. Of extreme importance is the assistance to be given in the adjustment of potential mental patients; the shy, seclusive individuals and the over-active or depressed ones can be helped immensely. One of the chief steps will be attained if people can be educated not to be ruled by their emotions, but to temper them with judgment and reason.

In short, it may be said that there are two essential necessities for future mental health. The first is leaders in our educational systems who are well equipped to disseminate their knowledge of mental well-being; and the second, without which the first is lost, is a public which realizes its own responsibility for social conduct or misconduct.

POST GRADUATE COURSES FOR PHYSICIANS

The Committee on Public Health Clinics, in continuing its program as outlined in the September issue of the JOURNAL, has planned a series of short instructive courses, as a result of its study of the replies to the questionnaire sent out several months ago. These courses differ radically from the usual, inasmuch as the committee has decided to limit them to four, six or eight sessions and to confine registration to four or six students in each course. It is felt that if each man taking the course is very close to the instructor and if the material to be covered is definitely decided upon in advance, much benefit will be obtained.

The instructor is to be held to a definite plan and schedule and the student is required to do definite work as well as correlative reading in each course.

A fee of \$5.00 is to be charged each registrant which will go to the treasury of the State Society.

Printed elsewhere in the JOURNAL is a copy of the form required to be completed by each instructor, a study of which should give a clear idea of what is expected from them. A registration coupon will be found at the bottom of next page which is to be filled out and returned to Charles L. Farrell, M.D., 23 West Avenue, Pawtucket, R. I., or to the Medical Library. The registration will be limited and the demand is expected to be great. The rule of "first come first served" will be applied and if registration is delayed it may not be possible to take the course applied for unless supplementary courses can be arranged. The list of courses for the month of April is as follows:

POST GRADUATE COURSES

Instructor	Course	Place	Day	Time	Registration Limited To
DR. MAURICE ADELMAN	Infant feeding Pyloric stenosis Asthma-Hay fever	Chas. V. Chapin Hospital	Thursdays	9-10 A.M.	5
DR. HOWARD BLANCHARD	Diagnostic Course Ear, Nose, Throat	R. I. Hospital Out-Patient Dept.	Mondays	9:45 A.M.	4 or 5
DR. JAMES F. BOYD	Indications for X-ray X-ray Interpretation	R. I. Hospital	Mornings Optional	10-11:30 A.M.	Facilities
DR. EDW. S. BRACKETT	Op. Obstetrics	Prov. Lying-In Hospital	Fridays	10 A.M.	4
DR. R. S. BRAY	Gastro Enterology	R. I. Hospital	Tuesdays	2-4 P.M. or 7-9 P.M.	4
DR. WILLIAM P. BUFFUM	Preventive Pediatrics Immunization, etc.	Prov. Lying-In Hospital	Thursdays or Fridays	11-12	4
DR. ALEX M. BURGESS	Diabetes	R. I. Hospital	Wednesdays	10 A.M.	4 or 5
DR. BERTRAM H. BUXTON	Operative Obstetrics Demonstrations	Prov. Lying-In Hospital	Begins April 1st	10 A.M.	4
DR. B. E. CLARKE	Tumor diagnosis Clinical and Laboratory	R. I. Hospital	Mondays	10 A.M.	6
DR. HALSEY DeWOLF	Peptic Ulcer, Clinical Work	R. I. Hospital	Tuesdays	10-11 A.M.	4 or 5
DR. C. C. DUSTIN	Arterio sclerotic heart disease Electro Cardiograph and Fluoroscopy	R. I. Hospital	Wednesdays	11 A.M.	Facilities
DR. H. L. EMIDY	Practical infant feeding Diagnosis of children's diseases	Woonsocket Hospital	Fridays	7-9 P.M.	4 or 5
DR. FRANK T. FULTON	Cardiac failure Types: Rheumatic, Syphilitic, Bacterial, Myocardial Arrhythmia, Electro - Cardiog- raphy and Fluoroscopy	R. I. Hospital	Thursdays	11 A.M.	Facilities
DR. N. S. GARRISON	X-ray diagnosis Fractures, diseases of lungs, of bones, general discussion	Woonsocket Hosp. Woonsocket Clinic	Begins April 8th	9 P.M.	6
DR. CHARLES F. GORMLY	Chest conditions Bronchitis, lung abscess, etc.	R. I. Hospital	Wednesdays	11 A.M.	4 or 5
DR. ROLAND HAMMOND	Fractures Bone and Joint Surgery—Two Courses	Pawt. Memorial Hospital R. I. Hospital	Mondays Thursdays	10 A.M. 10 A.M.	4 4
DR. WILLIAM H. JORDAN	Preventive Pediatrics	R. I. Hospital	Wednesdays	11-12	4
DR. EARL F. KELLY	Diabetes in children Preventive Pediatrics	(2 Courses) Pawt. Memorial Hospital St. Joseph's Hosp.	Wednesdays Saturdays	11 A.M. 11 A.M.	4 4
DR. JOHN F. KENNEY	General Medicine Diabetes—Pneumonia	Pawt. Memorial Hospital	Wednesdays	10-12 A.M.	5
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DR. LUCIUS KINGMAN	Major Surgery Operations as available	R. I. Hospital	Thursdays	10:30 A.M.	5
DR. HERMAN A. LAWSON	Pernicious anemia The leukemias, etc.	R. I. Hospital	Wednesdays	11-12	5
DR. WILLIAM MAGILL	Physio Therapy	R. I. Hospital	Wednesdays	4-6 P.M.	Facilities
DR. HERMAN PITTS	Cancer of Cervix Leucorrhea	R. I. Hospital	Tuesdays	9:30 A.M.	4 or 5

Instructor	Course	Place	Day	Time	Registration Limited To
DR. ARTHUR H. RUGGLES DR. ARTHUR NOYES DR. HUGH KIENE	Understanding the nervous and mental patient Treatment of incipient case Helping the patient on his return from mental hospital Dealing with family of mental patient	Butler Hospital State Hospital C. V. Chapin Hospital	As convenient		Facilities
DR. HENRY UTTER AND SERVICE DR. REUBEN BATES DR. ROBERT LORD	Pediatrics, Clinics, etc.	R. I. Hospital	Tuesdays	11 A.M.	4 or 5
DR. JOHN G. WALSH	Management of Labor Treatment of Vertex Treatment of Breech Operative procedures Caesarean Manikin demonstrations	Pawt. Memorial Hospital	Wednesdays	12 Noon	4
DR. GUY WELLS	Basal Metabolism	R. I. Hospital	Mondays	10 A.M. (After first session, time will be earlier)	4
DR. HAROLD WOODS	Urine Analysis Blood Smears, Counts	R. I. Hospital	Open		Facilities
DR. GEORGE WATERMAN	Office Gynecology Cervicitis—Endocrines	R. I. Hospital Out-Patient Dept.	Mondays	4:30 P.M.	4

Additional courses will be arranged if registration warrants.

These courses are open to all registered physicians in Rhode Island—
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INSTRUCTOR'S FORM

Date of Commencement of the Course

NOTE: This should be definite. If the course is one dependent on cases in the hospital it should be stated that the group will be notified by telephone. Such a course should be set to begin at some certain date.

Hour:

NOTE: The hour of the day may be designated in advance, or the instructors may arrange this with the group to suit the convenience of all. In certain cases it may be best to make the attendance at the hospital or other place contingent upon the availability of cases for demonstration.

Day and Dates: The above paragraph applies here also.....

Number of Sessions.....

NOTE: Four, six or eight sessions may be listed, or the group may be held on the work until a certain minimum facility on the part of members of the Section has been acquired.

Registration to be Limited to.....

NOTE: The experience of the Committee is that small groups of four or six are best.

Registration Fee

NOTE: This is ordinarily five dollars, which goes into the treasury of the Society. In certain courses it will be necessary to request a larger fee.

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Between the dates of..... and.....

NOTE: This data is essential to the Committee in preparing announcements of the course.

Subject of the Course.....

To Be Given by: Doctor.....

At.....

NOTE: Courses may be given at a hospital, dispensary or in the office of the instructor or sessions may be held at various locations.
TYPE OF COURSE: Please write one or two paragraphs presenting in a general way how you intend to teach the group.

IMPORTANT NOTE: No course should be listed unless the instructor is resolved to put the best he has into the work. Courses should cover some definite field and the instructor should satisfy himself that each man in the group taking the course gets full benefit from it. It is thought to be worth while to insist on correlative reading in certain courses.

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COMMENTS UPON MEDICAL TOPICS

By WALFORD W. THEWLIS, M.D.

Exton and Rose, *Am. J. of Clin. Path.*, 4:381, 1934, describe a one-hour two-dose dextrose tolerance test.

* * *

King, the *Southern M. J.*, 27:486, 1934, points out that the common abdominal symptoms in both hypertension and cardiac disease are flatulence, upper abdominal pain and tenderness, and ill defined dyspepsia.

* * *

There is convincing evidence that pancreatic tissue extract and myoston, given intramuscularly, do inhibit or delay intermittent claudication in the great majority of cases in which it occurs, according to Barker, Brown and Roth, *Am. J. Med. Sc.*, 1:36, 1935. The method of action seems to be obscure. The therapeutic value of the tissue extracts in peripheral arterial disease seems to be restricted to those cases in which intermittent claudication is the chief symptom and trophic lesions are not present. These authors show that these effects are not the result of vasodilatation but are the result of some direct action on the contracting ischemic muscles.

* * *

MILROY'S DISEASE. Ellis and Hall, *New Eng. Jour. of Med.*, 209: 934, 1933, report four cases of chronic edema of the legs occurring in three generations of one family. The most probable cause is an interference with lymphatic drainage.

* * *

COARCTATION OF THE AORTA usually causes arterial hypertension in the arms, hypotension in the legs, according to King, *Calif. & W. Med.*, 41: 2, 1934. The arterial pulse is largely or completely lost. King does not find that the incidence of tonsil infection in elderly patients with hypertension is higher than that of a cross section of the hospital population.

* * *

HEMATOGENOUS TUBERCULOSIS. James Alexander Miller, *Annals of Int. Med.*, 8: 243, 1934, stresses the point that pulmonary tuberculosis is frequently a part of a systemic infection. Two broad types, lympho-hematogenous and bronchopulmonary, afford a better conception of the dynamic character of the evolution of the disease than does the rigid adherence to fixed and static systems of classification.

RHEUMATOID ARTHRITIS. Wainwright, *Jour. A. M. A.* 103: 1, 1934, reports favorable results in cases of rheumatoid arthritis following intravenous injections of streptococcus vaccine prepared from the strain to which the skin was most sensitive. (*The question might arise that the results may be due to foreign protein.*—M. W. T.)

* * *

URTICARIA AND ANGIONEUROTIC EDEMA. Fink and Gay, *Bull. of Johns Hopkins Hosp.*, 55: 280, 1934, give the following classification of urticaria. 1. Associated with infection; 2. Associated with foods, drugs and other extrinsic factors; 3. Dependent on psychogenic disturbances; 4. Due to disturbances of the endocrine glands, ovarian or thyroid function; 5. Undetermined cause.

* * *

HERPES ZOSTER. Herpes Zoster may be the cause of symptoms somewhat suggestive of cholecystitis.

* * *

RHUS TOXICODENDRON POISONING. Gowen, *The Jour. of Allergy*, 4: 519, 1933, recommends one injection each spring, of the almond oil extract, for those who are susceptible to rhus toxicodendron poisoning.

* * *

In the actual treatment of the condition a wash composed of ammonium chloride, 1 ounce to a pint of water, frequently applied, seems to be satisfactory.

* * *

HYPERINSULINISM. Jacobs, *New Orleans Med. and Surg. J.*, 86: 724, 1934, reports the case of a 14-year-old boy who complained of weakness. He was unconscious for 20 minutes on occasions, but had no epileptiform seizures. He recovered on a high fat diet.

* * *

CERVICAL EROSION AND CANCER. Paul Schreier, *The Southern Surgeon*, 3: 165, 1934, believes that chronic endocervicitis with erosion is a fertile field for carcinoma.

* * *

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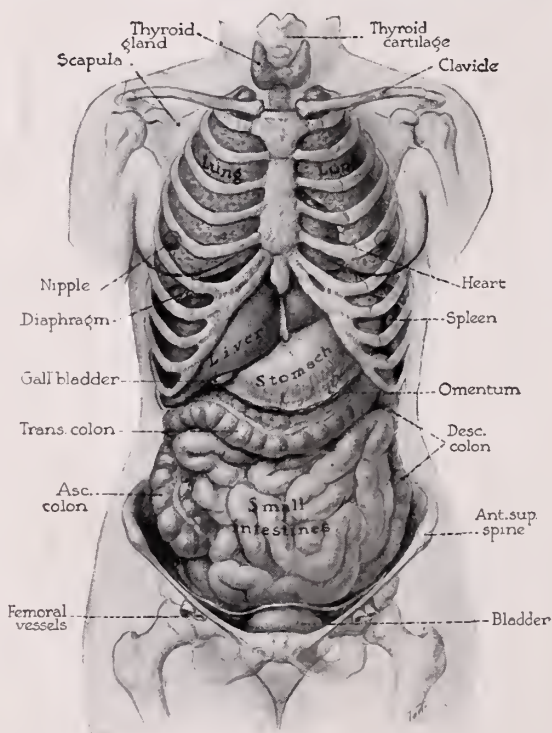
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ORIGINAL ARTICLES

COUNTY HEALTH UNITS*

By MALFORD W. THEWLIS, M.D.
WAKEFIELD, R. I.

It is a great pleasure and a privilege to address you. I hope you will be indulgent. The question I shall try to discuss is strictly none of my business, and I do not pretend to know much about it; but it is a subject which has interested most of us for a long time. We have heard so much about State Medicine, County Health Units, and the eventual doom of the private physician that we all want to know more about the Health program fostered by the Federal Government, and carried out in many states.

Is the County Health Unit, for instance, a partial answer to State Medicine? Would it not protect both the public and the medical profession? State Medicine seems rather a large order.

No government in this country would sponsor an organization which would give free medical treatment to those able to pay for medical services. It would be unjust, absurd, and inexpedient, since the poor would be taxed in order to enable those who are in easy circumstances to receive free treatment. Such a pattern is ridiculous; only the destitute should be allowed to take advantage of free clinics. Parenthetically, on occasions when would-be patients were asked to sign affidavits regarding their financial status, the attendance at clinics was materially reduced. The public at large is entitled to a program of disease prevention, as it is to good roads, clean streets and police protection.

Are those who live in the country healthier than those who live in crowded areas? In large cities? The layman will not hesitate to say yes, nor to tell you why. Those who are living in the country are getting excellent food, live close to nature, are seldom exposed to contagious diseases.

Is it a realistic conception of life in rural communities? In cities, the public is protected against con-

tagious diseases by rigidly enforced regulations. The sale of tuberculous milk, cream, butter, or ice cream is prohibited; milk inspection is compulsory. It would be interesting to know if the percentage of school children with tuberculous glands is higher in rural communities, or in cities. Unfortunately I have no data on the subject.

The situation confronting us in rural areas is complex: tuberculous milk, cream, ice cream and butter still marketed; local inspection of restaurants and food handlers unusual; no compulsory collection of garbage; flies, mosquitoes and rats thriving on public dumps; cesspools occasionally overflowing, and their contents sometimes used to fertilize lawns and vegetable gardens; public dumps not always at a safe distance from dwellings, some in the vicinity of schools; polluted streams running through inhabited sections, losing themselves in ponds on which a local fishing industry depends; sewage emptying itself into the bay, close to beaches; towns lacking public water systems, polluted wells.

At present the selection of health officers in rural areas is left to town councils. The town councils act as local boards of health. When called upon to act on matters pertaining to public hygiene, they may or may not agree. Health officers may or may not co-operate with local physicians to enforce quarantine. There are health officers who think that it is their duty to post a house, but that it clearly ends there, while others are public-spirited, energetic, intelligent citizens who take their office seriously.

Many of the present health officers are not qualified to act as such; very often, they are laymen not especially interested in health matters. And their responsibility is increasing every day.

Until recently, it was estimated that 40% of the cows in this State was tuberculous. Now most of the diseased heads have been eliminated. The New York Sanitary Code demands that all cows be free from abortus infection before January 1, 1936.

In schools, the actual care of diseased teeth is satisfactory—but dental preventive work has not been stressed.

There are no pre-school conferences, either medical or dental. Sanitary lavatory and toilet

*Address delivered before Rhode Island Medical Society, March 7, 1935.

facilities have been considered below standard in some rural schools. Facilities for lighting, heating and ventilation in certain grade schools are inadequate. Systematic instruction in health and the cultivation of health habits are left out of the schedule of rural schools.

In our State there is practically no systematic instruction in pre-natal care—all actual treatment rather than prevention. So far, preventive work in the rural districts of this State has not been emphasized, through no fault of the board of health, which has done all that was humanly possible to improve conditions. Infant mortality in Washington County was 62.5 for a ten year average.

The best way to combat tuberculosis is to eliminate its sources, insofar as it is humanly possible to do so. In cities the health services are so well organized that it is much easier to discover incipient cases. In rural areas we lack the same advantages. To give an idea of the cost of tuberculosis to the nation at large, we may say that it is estimated the State spends \$3.50 a day on each patient hospitalized in State Sanitaria—\$350,000,000 a year or 2 billions in five years. This is worth considering in the discussion of a disease prevention program. The tuberculosis problem is far from solved. 739 cases of diphtheria were reported in this country during the week of February 16th.

The spread of venereal diseases by known carriers whose freedom is not interfered with, may be considered in the near future; measles carriers are quarantined, but the former are not. When a venereal disease eradication program is agreed upon, the County Health Unit may handle it.

Those are only a few of the many problems which confront us.

Private schools and academies are introducing compulsory health education in their schedules. The generation coming out of those institutions will demand specific public health methods and focus on preventive medicine. It is the modern trend. There is a strong undercurrent we cannot ignore. The public asserts itself and expects the Federal Government to develop health units throughout the country. As it is always clamoring for safety devices, the public demands protection in every form; disease prevention is one of them; while in certain conservative areas conditions could remain static, the majority of voters will ask for the measures they think likely to increase safety.

It has been said that society determines the status of the physician; he has to fit into a pattern not of

his own making. His position is not his to determine. He must consider the wishes of the people. A full time health department may satisfy the people's demands and smooth the way for all of us.

Some states attempted health services for rural communities, operating from state capitals. In other states deputies were appointed, but most of these efforts ended in failure; and a basic form of health organization for rural areas seemed desirable.

This plan of health administrative service was inaugurated in 1911 by Surgeon Lumsden of the United States Public Health Service, and now approximately one-fourth of the rural population is enjoying the benefit of it.

Whatever is achieved in this field, however, will be the outcome of government ruling; a state law—since no county would put over such a plan of its own accord. Some might draft a tentative law as an experiment. If the government left health matters to rural areas it would be seriously handicapped in the realization of its health program. The children's charter of the White House conference included in its program "trained, full-time public health officials, with public health nurses, sanitary inspection, and laboratory workers" as a part of the minimum protection for children.

Those who live in metropolitan areas should be concerned in rural hygiene. Our farmers ship their garden and dairy products to cities. A percentage of the metropolitan population goes to the country in summer, and doesn't want to be exposed to unhygienic conditions. They are concerned about the water, the milk, the sewage.

Rhode Island is one of the few states entirely lacking County Health Units. In fact, we have a zero rating in Washington. 71.6 per cent of the rural population of this country is not provided with the type of health organization best adapted to rural areas. Rhode Island provides none. Delaware leads in the percentage of rural population under whole-time health service, Maryland has 93.3, Alabama 85.7, Kentucky 70.1, South Carolina 63.2. According to *Public Health Reports*, of the 581 counties, townships, or districts with health service under local whole-time health officers at the end of the last calendar year, 551, or 94.8 per cent were receiving financial assistance for the support of their health service from one or more of the following agencies: the State Board of Health, the United States Public Health Service, the Rockefeller Foundation, the American Red Cross, the American Women's Hospital Fund, the Rosenwald

Fund, the Commonwealth Fund, and the Millbank Fund.

Why does Rhode Island continue to have a zero rating and why can it not take advantage of financial assistance from some of the agencies mentioned above?

In other states County Health Units include sanitary corps workers; centralization of authority facilitates the task of the Board of Health—one board acts, instead of townships and town boards. If a similar organization were to be established in this State, would its maintenance be covered by an increase in taxation amounting to about \$1.00 per capita yearly, as in other states? Would the figure shrink if some of the agencies interested in public health were called upon to assist? Dr. Morris L. Grover gives the outstanding features of County Health Units as follows:

- A. Availability of expert personnel beyond the ability of a single town or township.
 - B. The head of each unit would be specially trained in public health work, and possess the degree of doctor of public health. The whole-time county health unit would include sanitary corps workers, men and women trained in public health work. The unit would also inspect milk, markets and food handlers.
 - C. The county or district, in some instances, is accepted as the most economical area for public health work plans.
- Nine activities of whole-time County Health Units are listed below:
1. Public health education.
 2. Control of communicable diseases.
 3. Organized prevention of nutritional diseases, and education in immunization against communicable diseases.
 4. Supervision of water supplies.
 5. Supervision of milk and food supplies.
 6. Public health nursing.
 - (a) Maternity and child hygiene.
 - (b) School nursing.
 7. Supervision of methods of sewage disposal.
 8. Sanitary inspections.
 9. Laboratory facilities for diagnosis.

The head of a county health unit should be well grounded in public health administration, epidemiology, vital statistics, sanitation, parasitology, bacteriology, and ecology.

Assistants in public health work might be part time workers; students, properly qualified, taking a short course in special fields, such as child health, mental hygiene, ecology, hygiene of ventilation and illumination, industrial medicine, vital statistics, sanitation, nutrition, industrial toxicology, applied

immunology, and bacteriology. These co-workers could be useful at a reasonable cost to the county.

County health administration is a highly technical service. It has to be well-organized and properly financed. The heads of the units have to be whole time, full fledged specialists in public health. The director might answer to a board of health composed of members who are appointed for a reasonable length of time—not all physicians, but representatives of the public and county government on those boards. If necessary, the welding of two or more counties into a district health unit might be considered. It has been done with satisfactory results in other states.

Even at the present time, every county can afford some type of organization. Some towns would save one or two thousand dollars a year if they fell into line. Others might have to spend five or six hundred more than they are now spending. Since some sort of health service can be obtained at a cost of 50 cents to \$1.50 per capita yearly, it is not unreasonable to assert that this plan could be put into effect in the near future. As Freeman states, "Our states, confronted as they are with the necessity for relieving rural agencies of some of the burden of taxation, may well contribute more largely than is now being done to the support of the county health service. Such support may be the means by which the state insures freedom of the local organization from political control and the conduct by it of a well rounded and effective program."

At a time when the proportion of population to physician is steadily decreasing, as it is in Rhode Island, we may ask ourselves just how such an organization might affect the economic status of the medical profession.

It should in no way interfere with private practice. Each medical society would have an advisory board concerting with health units; co-operation and co-ordination would insure good will.

'Some time ago, a friend of mine, a physician who has practiced forty years or so, said to me: "Less typhoid, less scarlet fever, less diphtheria—more and more people who aren't feeling well and want to know why. The law of compensation seems to apply to practice, and takes care of the situation brought about by better sanitation, better pre-natal care, better medical attention in early life, more comfortable housing, better hygiene."

Modern science saves a large percentage of the physically unfit—most of whom are largely dependent on medical care to carry on.

The prevention of cancer, cardio-renal disease, arthritis, arterial hypertension, the correction of diet deficiencies are given increasing attention. The physician is called upon not only to fight disease in its earliest stages, but to prevent its incipency. As the pattern of life changes, so do the factors of our equation.

How would the medical profession benefit from these units, which would not practice but would conduct clinics for the destitute only, and see that those who can afford to pay for medical services consult their physicians? For instance, if 12,000 children have to be inoculated against diphtheria, except those whose families are destitute, those children could be referred back to physicians. Thus about \$36,000 in medical fees would be distributed between 500 physicians.

Health units would educate the public, advise periodic health examinations by the private physicians of the families concerned.

Each medical society would have an advisory board to guide and advise the health units.

Should cities from 20,000 to 100,000 population be included in the plan? Some states have found centralization satisfactory.

The Federal Government might help establish and develop county or district whole-time health organizations (after June 30th).

We may see federal legislation fostering health work by government agencies. Is it wise to support these measures? The change seems inevitable and the public demands preventive work. Many seem to think we are headed toward State Medicine. *Would State Medicine ever be considered necessary if we ourselves helped to solve the problems which confront the Government?*

County Health Units would undoubtedly facilitate the task of the Board of Health, and would not interfere with private practice. Perhaps I am a confirmed optimist, but I cannot foresee the doom of the private physician. On the contrary, it seems to me that, when the public becomes health conscious, both layman and physician will enjoy better circumstances. Those who have overlooked medical care too long, and finally come to us when they are beyond rescue, are to be pitied. But so are the physicians who have to tell them the truth. It is not amongst those we can help that we find dissatisfaction—as a rule.

NEW ECONOMIC PROBLEMS FOR THE LYING-IN HOSPITAL*

By DR. HARMON P. B. JORDAN

*Superintendent of the Providence Lying-In Hospital,
PROVIDENCE, R. I.*

Were I not convinced that general conditions are improving, I would hesitate to bring up the subject of hospital economics to a group that has suffered more from the depression than most any professional group you can mention. Not only cursed with a financial slump, but blessed with the longest period of good health known in this country for many years, the result has been anything but inspiring. Of course very little blame is attached to the physicians for the depression, but the matter of good health is largely a result of the physicians' own activities. The first will soon be remedied, for the second there is little hope.

I suppose our experience at the Providence Lying-In Hospital has been quite closely paralleled by the medical profession itself. For many years prior to the opening of the new hospital on Maude Street, the hospital had been limited in its work, partly by lack of money and more especially by lack of facilities. Deliveries averaged from one thousand to twelve hundred a year. With the opening of the new building, the demands for care immediately increased far beyond our expectations. The profit from private patients was sufficient to care for the increased burden placed upon the management. We continued to grow to the point where it became necessary to lease two houses for nurses, a move which freed about thirty-five additional beds. With the opening of the Maternity Department of the Memorial Hospital, we gave up our Pawtucket clinic and all residents of Blackstone Valley were referred to the Memorial Hospital. This temporarily eased our burden and at about the same time the St. Joseph's Hospital opened a splendid new maternity ward. In spite of this, the demands again began to increase and continued until we were forced to build a nurses' home. Faced with a diminishing birth rate, a decrease which has continued for a number of years, it has seemed logical to believe that all hospitals doing this type of work would reach their peak and begin to retrogress. Probably this would have happened long since had it not been for the business depression back

*Read before the Rhode Island Medical Society, December 6, 1934.

around the other corner. For the past three years, our admissions have been over the three thousand mark. The immediate increase upon opening the new hospital was in the number of private patients, with a moderate increase in the number of free and part-pay patients. With the arrival of the depression there began a marked decrease in the number of private patients and an overwhelming increase in free and part-pay patients. Patients who had been accustomed to high priced accommodations, dropped to lower levels and our flat rate of \$65.00 for entire stay in the hospital for ward private patients became very popular, though there is no margin of profit here to help care for free cases. In 1930, 825 private patients, 599 free patients and 1,241 part-pay patients were cared for. In 1933, 541 private patients, 1,643 free and 855 part-pay patients were cared for, with corresponding decreases during the first 11 months of 1934. This means a 34% decrease in private patients, an increase of 174% in free patients and a decrease of 31% in the part-pay class. During the first ten months of 1930 our income from private patients was \$52,164.00. During the first ten months of 1934 our income from this class of patient has been but \$27,219.00, a decrease of 49%, with a corresponding decrease in income from ward patients. It is reasonable to suppose that this decrease in revenue and increased demand for free care noted by physicians has been closely paralleled by the experience of the hospital.

Of course, the hospital staff has the most important work of the hospital, seeing that the patients receive the best of medical care. That the staff has done a good job is attested year after year by the results obtained. The management of the hospital has another less important task. First to determine who shall be cared for and next to try to get some revenue from the patients admitted, because the hospital can no more operate without revenue than can the practitioner of medicine.

It was determined by the Board of Trustees of the hospital that the hospital would admit and care for maternity patients and such complications of pregnancy as occurred after the sixth month, such complications of pregnancy as might occur earlier in patients already accepted in the prenatal clinic, such repair work as was necessary before delivery and only such repairs after delivery as was the fault of the delivery itself.

The Trustees have always been whole-heartedly in favor of the policy which we adopted; that is, to make every effort to see that whatever work we are doing or plan on doing will be fair to the outside practitioner—that we shall not take patients away from private physicians or, for that matter, from another hospital without their request. For this reason patients applying for care go through the following routine: Unless referred by a director of public aid or other relief agency, they must present a letter from the family physician. The only exception to this rule is a former patient who has previously been recommended by a physician. This patient will not then be accepted until we are satisfied that she is unable to pay a physician for her confinement. On the physician's recommendation, the patient is tentatively accepted and admitted for care in the prenatal clinic. Unless we are certain from our records of the patient's financial status, she is asked to state the number in the family, with ages; how many are employed; the names of employers; total amount of income; cost of rent, insurance, etc.; and the total indebtedness, and the names of their creditors. This information is checked with the Social Service Exchange, employers, creditors, and the Providence Credit Bureau. This all costs us money but we are convinced that we receive good returns on the investment. Don't get the impression that we believe that we are infallible, far from it—but I am sure many of you would be amazed to find how much more we know about the patient's financial standing than do the family physicians themselves. I realize perfectly well that some people are too smart for us and are able to hide their assets, but these same people definitely plan on paying no bills, not even their doctors, you may have noted, and if they can get by our investigation, I am sure that they would be worth about a dime a dozen to the practitioner of medicine. We do catch some—the following being a fair sample: This lady presented not one letter, but for good measure had letters of recommendation from two doctors and also one from the Aid Society of her church, all stating the same pitiful story—a husband with ulcers of the stomach, working for small pay and losing pay because of frequent trips to a clinic for treatment. A report from Dun and Bradstreet showed that the husband made \$24.00 per week, and that the wife had continued to do at home the same work that she had done at a manufacturing plant before marriage. The hus-

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band's employer showed me that he had never deducted a cent for lost time, and the office manager showed where his concern had paid from \$25.00 to \$35.00 per week for work done at home during the year she had been married. I'm sorry to say that it is most common for the wives to tell us the fairy tales.

If we find the statements are true and feel that the income is too small to warrant even a *try* for a promise to pay, the patient is accepted without further ado. And remember that there were over 1,600 in this class last year. If their pay is small but by making some sacrifice they can pay the hospital something—no matter how small—I feel that we are doing the community in general a service by demanding that they make *some* payment. A great many factors help us in determining how much a patient should *agree* to pay—you will note that I do not say *will* pay. Collection is something else again. If a husband is employed at a reasonable wage and has few outstanding bills, I feel that he should make an effort to get his wife cared for by their own physician, and when they have none, they should find one. We have refused over a hundred patients a year because we have had reason to believe that they could and should pay their private physician for care. A few months ago I was interested to see what became of these patients when refused by the hospital. I picked ten at random and checked their birth returns at City Hall. Much to my surprise only three had been delivered by private physicians and none of them at the Lying-In Hospital. The other seven were all delivered at other local hospitals as ward cases, an occurrence that might be avoided if all hospitals had a clearing house for dead beats. I checked all of them with their family physicians and found that only two had been back, both of whom had shopped for a price and had not returned for delivery.

I have said something about charges. It might be worth while to say as much about collections. We accept flat rates for payment in advance and any rate determined as acceptable, we may agree to installment payments. Maybe you have noticed that most people find it easier to agree to pay than to meet the actual payment—so we always have a long list of defaulted agreements. We have never brought suit for payment, though we sometimes threatened such procedure—we have found that such people don't scare easily. Our usual practice

has been to allow the payments to default for four or five months and then urge them to come to the hospital for a personal interview. Many come in and put their cards on the table—if we feel that they honestly cannot make the payments, we cross them off our books and give them our blessing. Others, especially the ones who disregard our pleas, are turned over to the Credit Bureau for collection. They report if they find the debtor destitute and recommend that the charge be dropped, at least for the time being, but they have been extremely successful in making collections, at a nominal cost to the hospital.

We are always faced with a problem of whom shall be admitted from towns outside Providence. No town outside Providence has ever made any appropriation to this hospital for care of town poor. The Cranston Community Fund paid last year \$2,880 for such care and a welfare organization in North Providence has paid a small amount. No other town has made any effort to help defray costs of such poor patients. As most of our money is raised in Providence, it is grossly unfair to spend this money on non-residents. We never refuse deserving people and mostly as a courtesy to their physicians accept all emergencies whether able to pay or not.

Last February, it was agreed that the Unemployment Relief should pay a nominal rate to physicians for confinements at home. We welcomed this arrangement—and I was quite certain that there would be a lessened demand for hospital care and that a considerable burden would be removed from our shoulders. For some reason, my prophecy has not been fulfilled. I have asked many physicians why they still refer normal multiparae to the hospital. The majority answer that the \$25.00 is inadequate for the amount of work and red tape involved. I think the same is true of the whole practice of medicine at present, but I also feel that \$25.00 in cash is much more valuable than a promise of \$100.00 on the books and certainly there has been as much labor involved in either case. At least the majority of physicians in Providence must feel this way, as the number of maternity cases paid for by the Unemployment Relief to physicians has averaged only about three a month during this period. It figures about one per cent of the money paid to physicians for care of unemployed.

One thing worries me sometimes—with the practice of medicine what it is today, why does a physician refer a patient to the hospital for ward care—when the patient has thirty or forty dollars in her pocketbook? If the sum is too small or the physician doesn't do obstetrics, why not send the patient to some other physician who will be glad to care for her for less than the regular rate? It cannot be that he is afraid that he will lose the family if he refers the patient to another physician for confinement! I also feel that most physicians know too little about the patient's finances and their ability to dig up money when pressed. In addition to this I note that when patients are refused admission unless they have a recommendation from the family doctor, they rarely return without the letter. Apparently the doctor is either the most gullible individual in town or else he lacks the intestinal fortitude to refuse even the unworthy. Maybe it does put the doctor in a tough spot, but if all the physicians had the courage of their convictions and all refused to recommend patients whom they have reason to believe can and should pay for private care, it would work no one of them any hardship in the long run. I may be getting away from my subject, but the finances of the hospital and the finances of the physicians are definitely interwoven and any abuses existing at the present time cannot be corrected until all the hospitals and all the physicians, by means of credit investigation, determine who belongs to the class of worthy people, who always try to meet their obligations, who belongs to the class of deadbeats, who belongs to the class of chronic poor and who deserves and should receive charity.

I want to assure you that while we stand ready and willing to care for such patients as rightfully should enter the hospital—insofar as our finances permit—we have no intention or desire to grow at the expense of the private practitioner of medicine, and we welcome any information concerning our patients, so long as not received anonymously. Further growth of the hospital just means additional financial burdens, the difficulty of raising more money to carry on the work adequately. If more physicians would care for unemployed at the rate established, considerable burden would be removed from the management of the hospital and some of our economic problem and part of the physicians might be solved.

As usual I must be wrong—but many physicians practicing medicine at the present time assure me that they delivered hundreds of patients for fifteen to twenty-five dollars and felt that they were charging exorbitant fees, and it seems to me that non-acceptance of patients for the fee of twenty-five dollars offered by Unemployment Relief is disastrous to both the physicians and hospital. Another large group are being taught to go to the hospital and most of them are lost forever to the private physician. I hope that these patients are referred only because the physician feels that the hospital is the best place, and I realize that many of these families are living under such conditions that the average Class A physician wouldn't care for them at home on a bet. But this certainly doesn't apply to all referred to us. It is astonishing to me that the Unemployment Relief can pay as high as \$7,700 in one month for care of patients and only one per cent of this sum is paid for confinements. At the same time fifty or sixty may be authorized for hospital care. I agree that the amount received by the hospital is very acceptable, in fact it helps the overhead tremendously, but at the same time the relief agencies pay us twenty dollars we have to add roughly forty dollars to it in order to care for the patient. If we meet all the demands placed upon us, we must promote the additional money—and what I say of the Lying-In Hospital must apply to a greater or lesser extent to the other hospitals in the community—if the patients are referred to the hospital for care in constantly increasing numbers, another ten years will see the end of obstetrics in the home, and the hospitals struggling harder to raise money with which to care for this additional burden. There seems to be a limit to the amount of money which can be raised for care of patients in hospitals. There must necessarily be a limit to the amount of work which can be accepted in the hospitals, but to date there seems to be no limit to the number of patients referred to the Providence Lying-In Hospital for free or part pay care. Maybe the trend is logical and for the best—I'm not wise enough to say—but if not right and proper I would like to see the medical profession get together and do something about the problem—it might help both doctors and hospitals economically and I know one doctor who would be able to go to sleep at night without a cradle song, if he had only his own private financial worries to torment him.

THE RHODE ISLAND MEDICAL JOURNAL

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Meets the first Thursday in September, December, March and June

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ROLAND HAMMOND	<i>1st Vice-President</i>	Providence
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R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President.
Dr. Robert C. O'Neil, President; Dr. N. A. Bolotow, Secretary.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Archibald C. Matteson, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

THE PROBLEM WILL NOT DOWN

The present medico-political debacle, for it is no less, should give students and medical schools pause to consider the advisability of entering that field of medicine which leads to administrative work in health departments and hospitals. Until now it has always been thought that a person did best in that which interested him the most and that the best "leading" to one's life work was a vocation or call to that work. "For behold a new king which knew

not Joseph" is frequently illustrated at the present time. Consider well our present position in which men have entered whole-heartedly into an important branch of medicine only to be faced with the possibility of "being chucked out of their job" because political conditions have changed. This very frequently happens in business. Someone on the board of directors "does not like" an incumbent and out he goes. In hospital practise the same thing occurs, not only to superintendents but also to members of the staff of whom some evil-minded person "says something" or "tries to get him out." Rarely does the unfortunate get any explanation or

satisfaction when this occurs. "Be thou pure as snow, thou shall not escape calumny" obtains as well today as it did in Shakespeare's time. This writer is one of those who was started along the long road that leads to administration in health matters, but who used his eyes and ears to such advantage that he learned the possibilities of just such experiences as are at present under discussion in this city and state. Now in the general practise of medicine it is not unheard of to have some person or group of persons "change doctors" for some reason or other, but it is very rarely that a practitioner finds himself entirely without means of support or income. We learn from excellent authority that persons holding positions acquired by successful civil service examinations are not likely to lose their positions at a time of political changes, a fact which may in part solve a very important question. It would seem that the endorsement of accredited societies of learned men should have much weight in the recommendation of suitable persons for responsible health positions. Whatever smallnesses and imperfections of character physicians may have, the medical profession is certainly one of the noblest and broadest minded of them all. No profession brings its members closer to the great and worth while things of life; none, in the last analysis, is more likely to render reasonable and just verdicts in matters and policies pertaining particularly to public and private health; none has a finer record for probity and deportment than this of ours. The opinions of the medical profession should have great weight and should go far. There is no better criterion of these matters than that which emanates from those who have given their lives, their fortunes and their sacred honor to the contemplation of these problems or who have considered their life work far beyond ease and gain.

SO WHAT?

The spectacle of a young child, overwhelmed with his first consciousness of will power, who destroys an intricate mechanical toy with the idea of improving it, is a familiar one. His dawning ego and unrestrained superiority complex cannot compass the more mature judgment and experience, skill and thought, of the manufacturer.

If the analogy be correct, we have before us the similar spectacle of a new political power in our

state and city, similarly intoxicated by its own sense of importance, ruthlessly destroying an intricate system of government which has been conceived and modified over years of experience by the best minds that could be put to the task. All of this with the avowed idea of "Improvement."

We are witnessing an entire revolution of our State and City Health Departments, which are the products of a lifetime of skill and vision and evolution, guided by the hands of Doctors Chapin and Richardson, and tempered by their rare foresight and equally rare judgment.

Rhode Island health methods have for fifty years been the cynosure of the entire public health world, as models of efficiency, and almost miraculous results in the freedom of our communities from serious death rates and sweeping epidemics. Wherever in this wide world the language of public health is spoken, the names of Chapin and Richardson stand out as pre-eminent authority. Many of our present day citizens are well, unimpaired, and enjoying the fullness of healthy life, solely through the personal ministrations of these men and their well organized associates.

The advance of years has lost to us the splendid skill of Doctor Chapin's active service, but we rejoice at his present comfort and freedom from labor, in his well earned retirement. No man in our memory has set such an example of graceful retirement from public service, and no man in our memory has been blessed with a successor to carry on his work, of so nearly the original pattern.

As might well be expected, our community has continued to enjoy the blessings of unexcelled public health, and at the Chapin Hospital one can witness, almost daily, Doctor Richardson in active personal contact with patients, saving their lives.

How any man or group of men can deliberately sacrifice such skill for political policy is beyond the comprehension of any mind that really cerebrates. No appeal to reason, no estimate of the true value of the man, no plea for the health and happiness of little children and their distracted parents, no sense of even a modicum of gratitude seems to be adequate to turn aside the force that seeks to politically crucify a prophet in matters of public health. The issue is vital to every citizen of this state. There seems to be no answer. All we can say is in the words of the Master, "Father forgive them, for they know not what they do."

BASTARDS OF ESCULAPIUS

In the large cities, we have an over-supply of free and much imposed upon clinics, visited by numberless that can at least pay the clinic or the doctor something, but what with (unmentioned) payments on the radio and gas for the machine, just can't spare the money. An article some time ago stated that a western clinic put every applicant under oath and free patronage dropped 60 per cent.

There are a number of nurses, welfare, school, district and especially industrial, who visit our patients, advise as to treatment and not infrequently what doctor to call (if any). The trouble lies not in the cause, but at times to over zealousness, and nurses are not all handicapped by rigid rules of ethics. Furthermore, the majority of them so love to assume the premier role.

From times immemorial, patients have donned their old clothing to go to a poor clinic. The writer has seen them in a large New York clinic; they not only demand a great deal of attention but they want the professor to take care of them.

Then we have colon-filling stations and massage-joints, ligament pullers—they all practice medicine on the side. They don't hesitate to advise a patient about anything. One even sees a barber applying a vibrator over the lower part of the spine to give the man a cheap trip back to the road of sexual recovery. The barber's vacuum electrodes are frequently used for all sorts of skin disease, at a nominal fee.

Then to make matters worse, how many druggists actually practice medicine? They treat wounds, remove foreign bodies from the eyes, bandage sprained ankles, give favorite prescriptions for indigestion. A patient came to the writer with ampoules of amyl nitrite which some druggist had given her for headaches. A few days ago a clergyman prescribed a special way to make sulphur ointment for a patient who was under treatment by a physician. Go to your druggist, tell him your troubles, and it's an even chance you'll come away with some medicine. And the wrong medicines consumed by a gullible public each year runs into millions. The druggist often gives medicine for abdominal pain and then refers the patient to some doctor.

The country's full of "practitioners." If you happen to escape some of those mentioned here, your neighbor will give you a pet formula for piles, colds, indigestion, cancer, or what have you. If the

"Bastards of Esculapius" could be curbed there would be quite a bit of work for the medical profession.

SURGICAL SUPPLIES

In the March issue of the RHODE ISLAND MEDICAL JOURNAL, there appears an editorial under the caption of "A Golden Business Opportunity" that has occasioned considerable comment, some of which is of an adverse nature; this is very much regretted as no offense was intended. Furthermore we would not needlessly offend those who are doing their best to serve us.

The JOURNAL has thought fit, therefore, to investigate the possibilities of the success of still another supply house and has corralled certain unshakable facts: Rhode Island geographically has a small area purveyed to by a number of substantial supply houses and numerous traveling salesmen who have been coming for years and whose home establishments have never seen the way clear to open branch salesrooms within our bailiwick. Coupled with this the fact that two or more supply houses have come into being within our memory and shortly ceased to exist, the hoped-for Eldorado turned out to be a mirage. With the various hospitals (where probably 90% of all surgery is being done) having their own armamentarium of surgical necessities, it is upon mature thought, as the result of this investigation, somewhat difficult to see how a supply house can carry on profitably even supported by other merchandise, allied or otherwise.

SOCIETIES

THE RHODE ISLAND MEDICAL SOCIETY

The regular quarterly meeting of the House of Delegates was held Thursday, Feb. 14, 1935, at the Medical Library at 4:30 P. M., with the President, Dr. Albert H. Miller, presiding.

The minutes of the special meeting of Jan. 16th were read by the Secretary and approved.

The President announced that for the purpose of presenting to the Governor the Resolutions adopted at the special meeting of the House of Delegates relative to maintenance of medical licensure stand-

ards, etc., by the reorganized State Department of Health, he had appointed as a committee with him :

Dr. J. E. Donley,
Dr. Chas. L. Farrell,
Secretary.

The Governor received the committee, and in conference in addition to the resolutions which were presented to the Governor, protest against the transfer of the State Board of Optometry from the Department of Health to the Department of Education was made to the Governor. A request from the Governor that he be given information as to Naturopathy, a bill for the legalization of which had already been introduced into the legislature, was met by a letter from the Secretary giving him available information as to the nature of this cult, the scope of courses of education in schools of the cult, and a detailed criticism of the pending bill to license Naturopathy in Rhode Island. It was moved and seconded to approve the appointments and actions of this committee and it was so voted.

The President further reported that a request from the Governor of Jan. 21st for recommendations for the work of the laboratory of the Department of Health led the President to augment the Advisory Committee by the addition of Dr. N. S. Garrison, Woonsocket; Dr. J. N. Helfrich, Westerly; Dr. B. Earl Clarke, Pathologist at R. I. Hospital. This committee, with the President and Secretary ex-officio, made the following recommendations:

1. The committee holds that it is the recognized purpose of a Department of Health of a state to conserve the public health by measures for the prevention and control of communicable diseases.

2. The State Laboratory, under the direction of the former Public Health Commission, has for various reasons extended its activities beyond this field.

3. The welfare of the public and of the medical profession will best be conserved if the activities of the State Laboratory under the new Department of Health are confined to measures for the prevention and regulation of communicable diseases and to laboratory service for the indigent sick and for legal wards of the State.

4. While the cost of true public health laboratory service is a legitimate governmental expense, the extension of this service into the field of general laboratory diagnosis is an unnecessary and unwarranted burden upon the taxpayers of the state.

In connection with and in elaboration of the

foregoing, the committee made specific recommendation of the continuance of certain items of the laboratory's activities and for the elimination of others. The Governor was also informed that the committee was collecting data concerning the operation of Basic Science Boards of other states and would be in a position to report results of their study at a later date. It was moved and seconded that the enlargement of the Advisory Committee by the President, and its action be approved. It was so voted.

The President announced by authority of Article X, Section 1, of the By-Laws, he had appointed a Committee on Economics, composed of Dr. James A. McCann, Temporary Chairman; Dr. Norman S. Garrison, Dr. John N. Helfrich, Dr. Wm. A. Mahoney, Dr. Chas. L. Farrell, Dr. Anthony Corvese, Dr. Herbert H. Harris, Dr. Chas. H. Holt, Dr. Chas. F. Gormly, President and Secretary ex-officio. The duties of this committee comprise the following:

1. To consider problems of medical economics affecting the Rhode Island Medical Society and its members.

2. To co-operate with Committees on Economics of other State Societies.

3. To act as an Interim Committee on Legislation until the time when a new Committee on Legislation shall be appointed by the House of Delegates.

It was voted to approve the President's action in appointing the Committee on Economics.

It was voted to refer to the Committee on Economics consideration of the Basic Science Act.

Announcement of the resignation of the Committee on Legislation to take effect as of Jan. 25, 1935, was read by the Secretary. After discussion by Doctors Hammond, Leech, P. P. Chase, Christie and Farrell, the motion to accept the resignation of the Committee on Legislation, after being duly seconded, was lost by a 10 to 7 vote.

The following resolutions were received from the Providence Medical Association and read by the Secretary:

"The Providence Medical Association recommends to the Rhode Island Medical Society the consideration of the following in relation to the Workmen's Compensation Act:

- "1. Proper remuneration of hospitals to cover hospital cost.

- "2. Proper physicians' fees for long continuing cases.

"3. Proper fees, aside from those of attending physician, for X-ray and other laboratory work.

"4. Inclusion of industrial diseases under the Act.

"5. Small claims to be referred to the Small Claims Court instead of to the Superior Court."

"The Providence Medical Association recommends to the Rhode Island Medical Society the passage of an Act by the State Legislature providing, except in Workman's Compensation Act cases, that in the event of recovery of damages by any individual as compensation for an accident the medical and hospital expenses incurred as result of said accident shall constitute a lien on said recovery."

Dr. Kingman, chairman of the Committee on Public Relation of the Providence Medical Association, stated that these resolutions had grown out of a special meeting of the Providence Medical Association held for the purpose of discussing the Workmen's Compensation Act and allied subjects. Dr. Kingman stated that the resolutions were presented in general rather than in specific terms in order that they might be given specific form after consideration by the proper authorities of the House of Delegates of the Rhode Island Medical Society. It was voted to approve the resolutions of the Providence Medical Association, and it was then voted to refer these resolutions for consideration and action to the Committee on Economics.

The President announced that if the House of Delegates approved, the Committee on Program of the annual meeting of the R. I. Medical Society would arrange for a two-day session, one of which would be held on the first Thursday in June at 4 P. M., in accordance with the By-Laws. He stated that this was in the nature of a trial to determine whether or not a two-day annual session of the State Society would be feasible, and that action by the House of Delegates approving this change in the annual meeting would not require at this time any change in the By-Laws of the Society. On motion by Dr. Christie, seconded by Dr. Hammond, it was voted that the annual meeting of the R. I. Medical Society for 1935 should consist of a two-day program, one day of which should be Thursday, June 6th.

The President announced the tentative plan for this meeting to consist of clinics and commercial exhibits in addition to the regular program of scientific papers, and announced the appointment of a Committee on Clinics as follows: Dr. Chas. O. Cooke, Dr. D. L. Richardson, Dr. E. S. Brackett, Dr. J. F. Kenney, Dr. Frank E. McEvoy.

He also appointed a Committee on Commercial Exhibits: Dr. C. W. Skelton, Dr. B. H. Buxton, Treasurer, Dr. J. E. Mowry.

Respectfully submitted,

J. W. LEECH, M.D.,
Secretary.

NOTE

COMING EVENTS

May 6.	Providence Medical Association	Providence
May 7-8.	New Hampshire Medical Society	Manchester
May 22-23.	Connecticut State Medical Society	New Haven
June 3.	Providence Medical Association	Providence
June 3-6.	Massachusetts Medical Society	Boston
June 5-6.	Rhode Island Medical Society	Providence
June 10-14.	American Medical Association	
	Canadian Medical Association	Atlantic City
June 23-24.	Maine Medical Association	York Harbor

SPECIAL MEETING, HOUSE OF DELEGATES

January 16, 1935

A special meeting of the House of Delegates was held at the Medical Library on Wednesday, Jan. 16, 1935, at 4:30 P. M., with the President, Dr. Albert H. Miller, presiding.

The Secretary addressed the House upon the subject of the reorganization of the Public Health Commission as provided for in the reorganization bill passed January 1, 1935, by the Legislature, and stressed the hope that whatever reorganization might take place it would not result in a lowering of the standards of the educational and professional requirements of candidates for license to practice medicine in Rhode Island. These requirements, which are as high as those of any state in the Union, demand that any candidate for examination must be a graduate of a Class "A" medical school, and must have served a general rotating internship of at least one year's duration in a hospital approved by the Council on Medical Education and hospitals of the American Medical Association. The Secretary pointed out the desirability that Boards of Examiners in the Healing Art already established in Rhode Island should maintain their present composition of two doctors of medicine and one member of the particular profession represented. The Laboratory of the Public Health Commission has attained a high degree of efficiency, and it was hoped that this would be maintained or improved.

Following the foregoing remarks, on motion made and seconded it was voted to adopt the following resolution:

"Whereas, legislation providing for the reorganization of the various state boards and commissions and for the consolidation of those agencies administering the various state laws pertaining to the public health under a Department of Public Health has been voted by the Legislature of the State of Rhode Island, therefore be it Resolved, that it is the opinion of the Rhode Island Medical Society that, in the appointment of the officers and personnel of the Department of Public Health, the present standards of public health and the efficiency of the various divisions of the present Public Health Commission should be maintained or improved, and be it further Resolved, that the Rhode Island Medical Society asks that the present high standards of

educational attainments and requirements of applicants for license to practice the various branches of the healing art be maintained."

This was discussed by Doctors Garrison, Hindle, Farrell, Mowry, Walsh, Muncy, Mahoney, McCann, and Hammond.

During the discussion several of the delegates expressed the opinion that the present Committee on Legislation which had done such satisfactory work was now by reason of its personnel in a less advantageous position to influence legislation, and that another committee might have better opportunity to further legislation desirable to the medical profession.

The resolution was unanimously adopted.

It was moved and seconded that the President present the resolution in a personal visit to the Governor and in such manner as seems best by the President. It was so voted.

A letter from the *Italian Echo* asking for the approval of the Rhode Island Medical Society of a plan they proposed to publish a list of subscriber physicians according to their professions and specialties, was read by the Secretary. The Secretary stated that he had written to the Editor of the paper calling his attention to the act of the Council disapproving the listing of physicians in their specialties which grew out of an attempt a few years ago by the Providence Telephone Co. to so list the physicians. Dr. Conca stated that he personally objected to the idea put forth by the *Echo*.

It was moved and seconded to approve the Secretary's letter, and was so voted.

A general discussion then followed as to the activities of the Committee on Legislation, with suggestions that either a paid attorney or a paid lobbyist should be employed to present at the State House the attitude of the R. I. Medical Society. This was freely discussed by Doctors Farrell, Hindle, Helfrich, Garrison, Hammond, Archambault, Muncy and Bradley.

It was moved and seconded that the President appoint a special Legislative Committee of five members which would hold office during the present session of the State Legislature. The motion was lost by a vote of aye 8, no 11.

It was moved and seconded that the Secretary communicate with the Committee on Legislation with reference to making contact by personal interview with the State Legislators, and to report the result of this contact to the House of Delegates.

Respectfully submitted,

J. W. LEECH, M.D.,
Secretary.

PROVIDENCE MEDICAL ASSOCIATION

A combined meeting of the Rhode Island Bar Association and the Providence Medical Association was called to order by President William P. Buffum, Monday evening, February 4, 1935, at 8:45 o'clock. A business meeting of the Medical

Association was held first. The records of the last meeting were read and approved. Dr. George E. Reynolds was elected to membership. Dr. Albert Miller announced that a list of members and their specialties was posted in the library and suggested the members verify their proper listing.

The president then announced the following obituary committees: For Dr. Pasquale Conca: Drs. V. L. Raia and Anthony Corvase. For Dr. S. Newell Smith: Drs. Charles E. Hawkes and A. T. Jones. For Dr. O. M. Unger: Drs. Harold V. Corson and Hugh E. Kiene.

At the suggestion of Dr. Charles F. Gormly the consideration of the proposed amendment to the By-Laws was postponed to the next meeting.

President Buffum after a few words welcoming the lawyers turned the meeting over to President Chauncey E. Wheeler, who presided and after some preliminary remarks introduced Dr. George Burgess Magrath, Professor of Legal Medicine, Harvard Medical School, who opened the discussion of expert medical testimony. After referring to the diffidence of physicians to appear in court, he laid down some rules for their guidance. First, let the answers be responsive to the questions asked; second, never lose your temper; third, confine your answers to the field in which you have special knowledge; and fourth, do not be afraid to say, "I do not know."

He gave a short history of the evolution of the medical examiner from the coroner of Alfred the Great. He emphasized that the dearth of facts led to conflict in testimony and recited numerous cases from his experience showing the necessity of knowledge of the facts.

Judge Charles A. Walsh, Associate Justice of the Superior Court, was the second speaker. He first paid a tribute to Dr. Magrath as a witness. He emphasized that whereas questions of opinion are ordinarily for the judge and jury, medical expert testimony is an exception. There is room for differences of opinion in many medical questions but if experts disagree naturally an ignorant jury can hardly be expected to decide wisely. He deplored that there are no uniform standards for qualification and that pseudo experts can cast doubt on the value of medical testimony. Among methods suggested to get rid of incompetent witnesses are: 1. Jury of experts. 2. Appointment of experts by the court. He felt that hypothetical questions are a field for legal tricksters but he saw difficulty in eliminating them. To summarize, he gave these suggestions: Tell truth; be prepared; answer the questions asked; be natural and unpretentious; don't argue or lose temper; keep the voice up; when through shut up; avoid frivolity; be dignified; avoid highly technical language if possible.

The meeting adjourned at 10:45 P. M. Attendance over 350. Collation was served.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

ANEMIA IN INOPERABLE CARCINOMA OF THE STOMACH. Clark W. Heath, of the Thorndike Memorial Laboratory, points out, in the January 1935 issue of *The Medical Clinics of North America*, that the anemia accompanying carcinoma of the stomach may be of a type which will respond to proper medication. Iron deficiency anemia often accompanies this condition. It is a microcytic, hypochromic type of anemia. Pernicious anemia associated with carcinoma of the stomach is not common but it does occur; and it is relieved by liver just as the ordinary case is treated. Heath does not believe that the anemia secondary to the toxic effects of the carcinoma and the anemia secondary to the bone marrow metastases can be alleviated by medication. The identification of the type of anemia present and the proper medication is of considerable advantage to such patients.

* * *

SURGERY IN DIABETICS. The factors influencing the surgical risk in diabetics are: (1) age, (2) susceptibility to infection, (3) delayed healing, (4) acidosis, according to Erdmann et al, *Am. J. Surg.*, 27: 340, 1934. They find spinal anesthesia not a dangerous method nor are they adverse to ethylene or gas oxygen in diabetics. Ether may be used in small quantities for short anesthetics. Chloroform is dangerous. Wound healing is impaired in the presence of a marked amount of sugar. Preoperative care and postoperative co-operation of the medical attendant reduces the surgical risk in the diabetic.

* * *

SPIDER BITES. Magnesium sulphate, 10 c.c. of a 25% solution, intravenously, repeated after two or three hours, is advocated for "black widow" spider bites by DeAsis (*Am. J. Trop. Med.*, 14: 33, 1934). The symptoms are elevated blood pressure, slow pulse, rapid respiration, profuse perspiration, general weakness and numbness, muscle pain and paralysis of the lower limbs. (One would wonder if adrenalin might be of help as it is in certain cases of insect bites.—M. W. T.)

* * *

SICKLE CELL ANEMIA. Diggs, *Am. Jour. Med. Sc.*, 187: 521, 1934, finds that sickle cell anemia (a disease peculiar to negroes) is uninfluenced by any treatment. Diggs and Ching, *The Southern*

Med. Jour., 27: 839, 1934, show that 8 per cent of all negroes inherit the sickle cell trait, an anomaly characterized by the capacity of erythrocytes to assume multipointed bizarre forms when sealed under a coverslip. They find the expectancy of life in sickle cell anemia is less than 30 years. Pneumonia, tuberculosis and other infections are common complications but death may be due to the anemia alone. Many of the patients are tall and slender.

* * *

ARTHRITIS. Parker et al, *Arch. of Path.*, 17: 516, 1934, state that bony projections, or so-called exostoses, were due to a projection of bone and cartilage over the edge of the joint surface, or to a depression of the cartilage below its original level, thus giving the appearance of bony outgrowth. They seem to occur with increasing frequency with advancing age.

* * *

BOOKS I have enjoyed this month: Good-bye, Mr. Chips; *America's Tragedy* (a study on sectionalism in our country); *City Editor*; *Hitler Over Europe*; *Erasmus of Rotterdam*; *A Journey Into Rabelais' France*.

* * *

Dr. Goldwater's plan to utilize the enormous facilities of New York City's institutions for research purposes is not a bad one. He plans to build up the research council from department physicians and outside specialists. There are 800,000 ill persons treated in the city's hospitals yearly.

* * *

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Other matters, for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.



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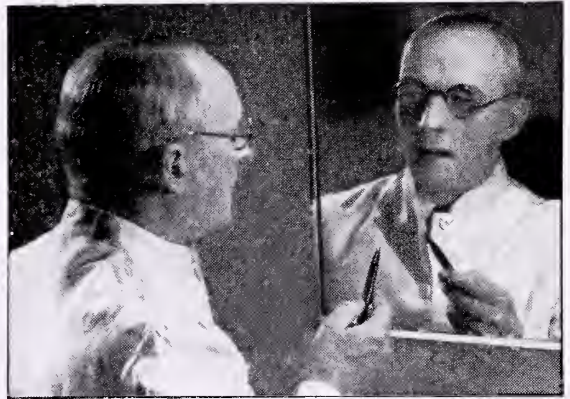
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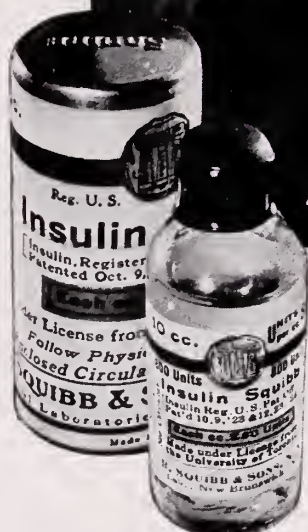
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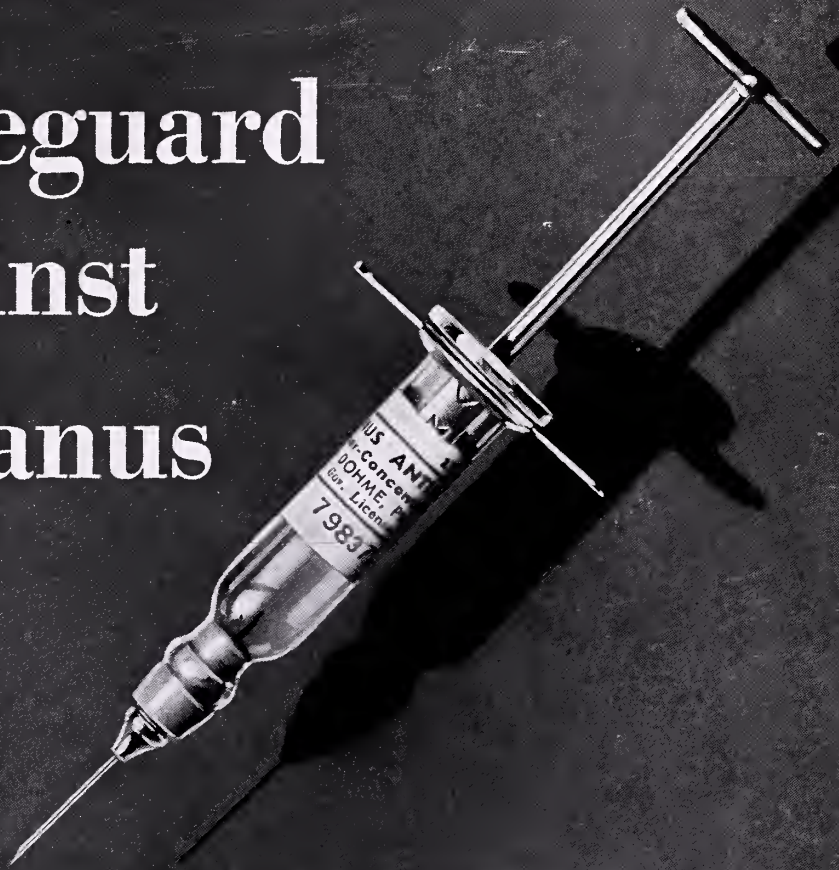
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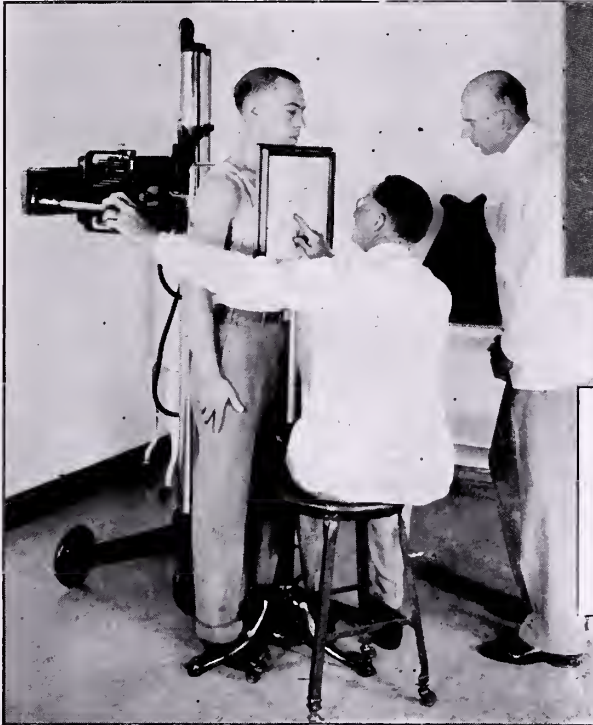
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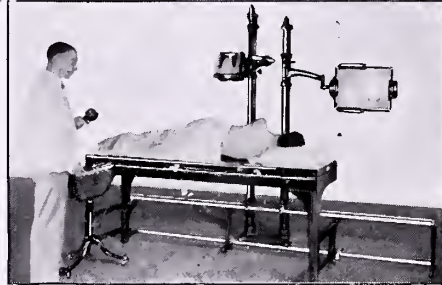
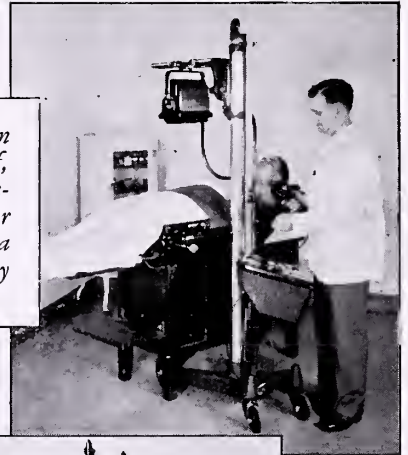
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ORIGINAL ARTICLES

A CASE OF LIPOID CELL PNEUMONIA*

By DR. JOHN LANGDON
122 WATERMAN STREET, PROVIDENCE, R. I.

I am presenting a case of lipid cell pneumonia which is a condition recently recognized as one of clinical importance. It is found in patients who have, in one way or another, aspirated oils or lipid substances. This occurs especially in infants who are suffering from debilitating diseases, coma or vomiting, where the cough reflex is poor or absent and where regurgitation may easily occur.

As described by Goodwin and Pinkerton the aspirated fat or oil droplets on entering the trachea are met with resistance by the cilia of that region and an attempt is made to expectorate. Once reaching the alveoli little expectoration occurs. The lipid droplets are then taken up by large mononuclear phagocytes (probably of endothelial origin) and transported via the lymphatics to the tracheobronchial lymph nodes. A small amount of material may get into the general circulation and be deposited in the spleen. The lymphatics are frequently blocked with the oil-laden cells or by free fat. Finally fibrosis of the lung results. An associated infection may occur, bacteria being carried down from the naso-pharynx.

E. K., a white girl, was born July 13, 1932, of elderly parents. She was the result of the sixth pregnancy. Four children between the ages of 10 and 15 are living and well. The fifth child died of cerebral hemorrhage early in infancy.

Her birth was uneventful after a normal pregnancy. However she did not breath for three minutes and she had cyanotic spells and weakness for several days. She has had generalized twitching spells from the first few days of life. On the third day of life generalized edema of the body was noted. This subsided in about a week, but the patient became generally spastic and continued to have petit mal seizures.

A subsequent encephalogram showed generalized cortical atrophy and it is believed that the child suffered from the syndrome of tetany, generalized edema, and cerebral edema, recently described by Shannon. The edema resulted in brain damage with subsequent scarring of brain tissue and generalized muscular spasticity.

On admission to the Emma Pendleton Bradley Home in May, 1933, the patient showed widespread spasticity, blindness, inability to sit up and generalized underdevelopment. There was no evidence of rickets and there were no pulmonary signs noted.

Since birth there has been great difficulty in feeding and in the hospital she has only been able to swallow liquid foods and this has been associated with much coughing, sputtering, gagging and drooling. This has continued with each feeding up to the present time. On several occasions obvious aspiration of food has occurred.

At intervals of about two months the infant has had attacks of acute illness with fever up to about 103, rapid respiration and tracheal rales. These we believe have been due to a tracheitis due to aspiration of milk. There has been no leucocytosis except during one of these flare-ups. The differential count has been normal, the urine has been negative. The tuberculin test in high dilutions has been negative.

In Sept., 1933, the chest signs were negative.

In Jan., 1934, moist tracheal rales were noted.

In May, 1934, supra- and infra-sternal retraction during inspiration was noted for the first time.

In Aug., 1934, the child showed thoracic breathing with marked inspiratory effort. A few fine rales were heard throughout the chest.

In view of the development of the respiratory difficulty the history of the aspiration of foods, lipid cell pneumonia was suspected and confirmed by x-ray taken by Dr. Gerber, Oct. 25, 1934.

At the present time the child shows definite respiratory difficulty with super- and infra-sternal retraction. There is slight dullness over the right upper chest posteriorly, and fine crackling rales are heard throughout the chest as well as rhonchi transmitted from the trachea. Liver and spleen are not palpable.

clubbing of the fingers. It is expected that an acute infectious pneumonic process

*Read before the Providence Medical Association, December 3d, 1934.

will sooner or later terminate the course of the disease.

The x-ray alone gives the true idea of the extent of the lesion and a real impression of its chronicity. The density of the consolidation varies in different parts of the lung. It is central, bilateral, more extensive on the right and is probably posterior. The shadow is more extensive than would be expected from physical examination. Pictures taken weeks apart show scarcely any difference in the appearance of the lungs.

Treatment in these cases should be mostly prophylactic when possible. It is probably unwise to use oil drops in the nose of any small or weak infant, and liquid Petrolatum as a laxative should not be used in the same type of case. When codliver oil is taken poorly a concentrate vitamin preparation probably should be given. In very ill or comatose children unusual precautions should be taken to avoid aspiration. When children are inclined to vomit it is important that they be placed on the side.

Good nursing care is essential. In those cases where the debility can be overcome the process may subside.

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THE MEDICAL EXPERT*

By HON. CHARLES A. WALSH
JUSTICE IN THE SUPERIOR COURT
PROVIDENCE, R. I.

Any lawyer with a realization of his duty to his state and its citizens and of the responsibilities which his profession places upon him cannot fail to appreciate the great contribution that the medical profession has been and is making to the administration of justice. Where human rights and human beings are in danger of exploitation, you will find the lawyer and doctor working hand in hand to protect and conserve in accordance with principles of justice.

Over the portico of a court house in New York City is the following inscription, "The true admin-

istration of justice is the firmest pillar of good government." It might be well if this inscription could be indelibly inscribed upon the hearts of judges, juries, lawyers and witnesses as a continuous reminder to them in the discharge of their duties. Then might our citizens eligible for jury duty realize that the sound administration of justice requires the honest and intelligent co-operation of good citizens sitting in the jury box. Much too frequently those best qualified to give our courts that co-operation seek to avoid jury service. They are definitely slackers in the great effort of enforcing through our courts that respect for law and for duly constituted authority which means so much for the safety, security and happiness of America.

But our main discussion tonight is confined to a most important element in a trial, the witness. The witness stand is a place of ordeal, there is no severer test of character. Everything a witness does or says on the witness stand is watched, measured, weighed and judged. On that stand egoists are deflated, braggarts exposed, double dealers revealed and liars caught. A witness who attempts to pit his wits against a skillful cross-examiner is at a great disadvantage. He will find himself, nine times out of ten, in the position of the negro congregation whose pastor preached on the topic of "The Depression," and who said, "The trouble with us is the status quo." After service some of the sisters asked, "Reverend, what is that status quo you spoke about?" and he replied, "Status quo is the hell of a fix we find ourselves in." And by the same token we know that cross-examination in unskilled or clumsy hands is a weapon more likely to explode in the face of the cross-examiner rather than in the laps of the enemy. This generally happens when the witness is telling the truth and refuses to get excited about it despite attempts of counsel to compel him to lose his poise.

But we, who are interested in medico-legal jurisprudence, know enough about the ordinary witness testifying about the usual facts in issue. What we want to know is something about the specialist on the witness stand, in other words, the medical expert. Probably in no field of medico-legal jurisprudence has there been so much loose talking and loose thinking as in that of expert testimony. In the law, opinion evidence, so-called, is generally excluded on the ground that it is for the jury to form its opinion on the facts in issue and the opin-

*Address delivered before the Providence Medical Association February 4th, 1935.

ion of the witness on said facts is not material. An exception to this rule is made, however, with respect to questions of science and art in which cases "the opinion of persons specially skilled in any such matter are deemed to be relevant facts." In this category the expert medical witness is found. The reason for this exception is that by reason of special knowledge or skill the medical expert is qualified to have an opinion about facts in a domain where a judge or jury lacks special skill or knowledge.

Frequent strictures upon expert testimony may be traced to the failure of the court to require adequate proof of qualifications before allowing the alleged expert to testify. In large cities there are physicians who are better known as expert witnesses in law suits than as medical practitioners. On the other hand, the most active practitioner appears less and less in court, believing that such appearances have become too much commercialized. Few spectacles can be more absurd than that of a jury of twelve ordinary individuals who, without any previous scientific knowledge or training, are suddenly called upon to adjudicate cases in which the most eminent scientific men flatly contradict each other's assertions. How can such jury men, who have never been accustomed to give sustained attention to any subject, be expected to weigh evidence covering many days of hearing on subjects described in language new and foreign to their understanding?

Deductions in scientific matters are matters of opinion and not of exact calculation. In the science of medicine there are varying degrees of exactitude in prognosis and diagnosis and, therefore, room for difference of opinion. Under these circumstances, it is quite important that the court have the services of the best experts available in important cases. And to that end it is pertinent to inquire what standard of fitness, of experience, of special skill, of knowledge for these experts has the court made. Unfortunately there is no uniform standard. In some jurisdictions, the minimum requirement, viz., the ordinary practicing physician without any special training or experience, is allowed to qualify as an expert. The difficulty with this situation is that it allows an incompetent tyro to criticize adversely and condemn, without proof of his qualifications to take such a position, the opinion of a physician who has devoted long years of indefatigable labor and arduous devotion to a specialized field. This venal and incompetent pseudo expert is one of the causes

of the public criticism leveled at expert medical testimony in general. Such pseudo experts acquire a bias due to partisan zeal. It is repugnant to fundamental principles that opinion evidence should be weakened by a suspicion that it is induced by hope of pecuniary reward. The expert is supposed to be particularly qualified to express an opinion upon which he has special knowledge and of which the layman is ignorant. If his opinion is corrupted or influenced or colored by considerations other than the real facts and his own honest convictions, the sole reason for presenting the introduction of expert testimony falls to the ground.

The rich rewards resulting from large contingent fees for medical witnesses have created a class of specialists who are far from being a credit to an honorable profession. The giving of expert testimony has become a profession in itself. The old jube that there are three kinds of liars, the liar, the d—d liar and the medical expert, owes its popularity to the performances of pseudo experts of this type. There is no doubt that the extraordinary antics of these charlatans are in many cases a disgrace to the medical profession.

On the brighter side, however, is that larger group of faithful and honest medical experts who have acquired high position in public estimation and in that of the courts. They are free from partisan bias, possessed of great judgment and a judicial mind, have wide scientific experience and profound knowledge and their opinions upon the questions submitted have great weight.

These men are generally men of honor, of culture, of gentlemanly demeanor, who radiate sincerity and confidence. That honest men may differ is axiomatic. That doctors should honestly differ on a matter of opinion is to be expected. Doctors of law are quite as irreconcilable in their views at times and I presume that it would be extremely difficult to find two Doctors of Divinity who agreed on all points. So why blame the doctors for disagreeing upon matters of opinion, provided their grounds of belief are honestly arrived at after using all their knowledge, skill and experience in an endeavor to arrive at the correct result?

The honest doctors have debated how to get rid of the poseur who disgraces his profession by appearing as the venal and incompetent medical expert previously spoken of. Their recommendation is a subsidiary jury of experts to pass upon these scientific problems. The first difficulty with this suggestion from the legal standpoint is that until we

arrive at a point where these scientists will agree, it is hardly to be expected that a party to a law suit will consent to such procedure if it involves the surrender of his fundamental right of introducing any kind of material evidence in support of his contentions. Another objection is that it is impracticable because expert medical evidence in this day of specialization would have to be classified under a dozen or more heads. The stomach specialist is valueless on the question of existence of mental disease and the psychiatrist is generally useless where the spleen is involved.

Again, we have the trial by jury firmly established in the Constitution and that cannot be interfered with and when we consider that in virtually all litigation the scientific fact involved is seldom more than a part of the issue and cannot be separated readily, the difficulty of handling two juries is apparent.

Another suggestion is that the Court appoint the experts. This recommendation comes from the Committee of Jurisprudence and Law Reform of the American Bar Association after conference with a Committee of the American Medical Association. The plan is that legislation be formulated whereby (1) notice by either party was to be given in advance of trial of its intention to take expert testimony; (2) that the Court should be authorized to call not more than three disinterested expert witnesses, subject to examination and cross-examination, after making a report in writing to the Court; (3) that the amount of compensation to be paid to such witnesses should be fixed by the Court and that they should receive no further compensation, and (4) that the Court in commenting upon the meaning and weight of evidence might consult with the expert witnesses called by it. It cannot be said that these recommendations are all unobjectionable from a legal standpoint but this method might conceivably dispose of most of the present abuses. It is conceivable that a judge might be a good judge of law but a poor judge of doctors and that he might appoint incompetent official experts. However, solid progress comes slowly and carefully in the law and, perhaps, this last suggestion offers the germ from which will develop the solution of the problem of the medical expert.

When you mention "medical expert" echo answers "hypothetical question." The most difficult problem for the court, jury and witness is this bugaboo. The hypothetical question is politely re-

ferred to as a medium by which the opinion of an expert is elicited. The hypothetical question is a most fertile field for the legal trickster. It is much abused and its use is condemned by legal authorities of weight. It has been referred to as the most abominable form of evidence that was ever allowed to choke the mind of a juror or throttle his intelligence. The hypothetical question is misused by the clumsy and abused by the clever and it has in practice led to intolerable obstruction of truth. It has become highly mechanical and unconvincing both to court and jury. A recent case reported two hypothetical questions of 36,000 words or 36 columns of news print. Our own Dr. Farnell has said that the hypothetical question is responsible for most of the apparent conflicts between the opinions of medical experts, that it is highly artificial, unconvincing, complex, wanting in actual basis of fact and tedious. Despite this criticism, it is not easy to see how a scientific issue could properly be decided without questions of this kind.

What course of conduct should the successful (if I may use that term) medical witness pursue in court? From my limited observations, I am going to dare to presume to answer this query. The good and successful witness tells the truth, no matter if part of the truth may seem to hurt his case. The truthfulness of the witness is perceived, sensed, felt almost immediately by his hearers. The good witness comes prepared upon the matters upon which he is to be examined. They have the names, dates, figures, places; they have their books and reports to corroborate their memory. They have read up the authorities and have acquainted themselves with the most modern ideas in the healing art upon the matter in dispute. They know the literature upon the question involved. They are not afraid for they know that truth needs no defense. They are natural. They are modest. They are frank. They listen carefully to questions. They do not volunteer information, they answer the question. They do not argue with counsel. They do not lose their temper. They are courteous at all times and they keep their voices up. The answers of the good witness do not suppress the truth or suggest the false.

Now, a little homely advice if you want to impress a cranky judge. When you have answered a question, shut up. No witness is so dangerous to his own side or so much the prey of counsel on the other side as the talkative witness. Avoid jesting

and frivolity. Few, if any judges appreciate any wit or humor but their own; and judicial wit and humor are well known to be the lowest species of either. Nothing impresses a judge or jury more than the quiet dignity of a self-respecting man—respecting himself he is willing to respect others and he inspires respect in others. Another fault of the medical man is the use of highly technical language. Of course, medicine like every other art and science has its own terminology, which it is wholly natural for its practitioners to use, but whenever an accurate impression can be conveyed by the use of common language, common language should be used. When technical nomenclature can alone give the right idea, do not hesitate to employ it. Let medical witnesses be masters of their science and practice plain, simple honesty in its explanation to the lay mind and the most of the scandal we have been talking about will disappear.

TWENTY YEARS' OBSERVATION OF MEDICAL QUESTIONS UNDER THE COMPENSATION ACT*

By JAMES J. DONAHUE
WORKMEN'S COMPENSATION COMMISSION
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The economic situation which confronts the medical profession at the present time is one receiving considerable attention from all sources. The medical profession is getting plenty of advice from lay sources which know very little of medical questions.

It is generally conceded that the medical profession during the last century, or slightly more, has done more for the human race than any other body of men and it is unnecessary in this brief discussion to enumerate the various ways and means by which the human race has been the benefactor resulting from its activities. These advances have not come without untiring effort.

Medical education costs more today and medical services cost more than they did 25 or 50 years ago but there is a difference in the return for the money expended, and medical costs in view of the type of service rendered have not increased, so far as the individual practitioner is concerned, comparable to the advance in costs of other arts and trades. To be

explicit, twenty-five to thirty years ago in the practice of medicine, from my own observation and knowledge, the average doctor received in localities such as the one in which I hold forth \$1.50 and \$2.00 for a call. The average mechanic in those days was getting about \$2.50 a day. Today, or just before the slump in prices, the mechanic was getting \$1.25 to \$1.50 an hour and the medical man is still making calls for \$2.00 and \$3.00 a call. In order to keep pace with the mechanic, the medical profession should be charging \$10 and \$12 a call. If we did so, what a holler there would be, but it would be no more than in keeping with the advances of the other elements.

Today the cost of a medical education runs from \$15,000 to \$20,000, and still, notwithstanding this cost, the medical profession seems to be overcrowding. And we should not get into the position where it is so overcrowded that a man cannot make a reasonable and substantial living in this field.

The people demand the best, and they are entitled to the best that medical science can give, but they should also expect to pay for it.

I believe that the heaviest part of the medical cost burden comes as a result of the mass of detail work and the great armament of help imposed upon hospitals in order to maintain their standing.

There are many writers of the present day, largely from the lay classes, who are busily engaged in trying to solve the problem of cutting medical costs, and we have hovering over us the shadow of State medicine at the present time, which I hope personally will never come to pass, and I believe it behooves the medical men to study ways and means to combat this propaganda which seems to be so much in the air just now. I believe the profession should exercise care and caution in dealing with the public, especially on the question of fees, so that we may not arouse any more antagonism than necessary or stir the animal into any greater activity.

Under Workmen's Compensation there probably has been a great field for arousing antagonism and to quite an extent the doctors are to blame for this feeling.

Now in dealing with this feature of the economic question with which we are confronted, I might preface my remarks by saying that I have been more or less directly associated with compensation work for over 20 years. I can view the question from the angle of a physician as well as that of a compensation commissioner.

*Delivered before the Rhode Island Medical Society at the March meeting 1935.

As the situation strikes me, those who are vitally interested in the question are: first and foremost, the general public, which pays the bills; secondly, the injured workman; then the employer and insurer, with interests not materially different; then the physician and surgeon, and last but not least, the Industrial Accident Commissioner, who has no personal interests at stake but would like to see the workman properly taken care of with compensation costs kept at a minimum and administration of the law running smoothly.

The general public has probably the greatest interest in the question, for in the last analysis the bills are paid by John Public and we cannot foster any system which will add materially to his burdens. I believe that anything which resembles a dole system or adds unnecessary expense onto the cost of operation of a compensation act, through unwarranted medical charges or unscrupulous encouragement of claims of litigants, must not be allowed to develop.

I know of but two States in the Union today,—and one of those is your own State of Rhode Island—which subscribe to the plan of selection of physician by the employee, and it impresses me that if there are only two States in the country which favor such a plan, that is a rather strong argument against it, because the matter has been debated and is continuously up for discussion.

In those States where the selection of physician is made by the employer, it is interesting to note that it is not the workman himself who is disgruntled but those doctors who feel that they are not getting what they may consider to be "their share" of compensation work, and that new legislation will bring them the desired business. Consequently, the present agitation of the question of free choice by medical associations all over the country is directed not so much towards improving the type of treatment given as it is towards increasing the income of some of its members—and I say that without prejudice to my fellow practitioners.

As I understand it, the States which permit free choice of physician by the employee provide a limited medical service. However, in a State like Connecticut, where the law provides unlimited medical, surgical and hospital treatment, it would be quite a different proposition, and a dangerous one, to subscribe to the same plan. It seems to me that in our State, for instance, it is only just that the employer or his insurer should have directory power over the unlimited medical treatment for which he must foot

the bills. And I have known of one single case where the bills mounted to over \$20,000.

He will be interested not only in keeping those costs within reasonable limits but at the same time in obtaining the best results for the employee. No intelligent employer or intelligently managed claim department of any insurance company today is interested in any but the best surgery and they are not going to quarrel about the bills if the end result is the best that can be had and they are getting real value for their money. As an economic proposition, it is to their advantage to buy the best of medical service so that there may be not only an early return to work but the minimum amount of permanent disability. You cannot therefore blame them for sending their compensation cases to those physicians and surgeons who have proven their ability and integrity and for not experimenting with Tom, Dick and Harry who are unknown to them and who may indulge in needlessly expensive treatment and endless calls, with an eye to what they are getting out of it rather than to the welfare of the patient.

I do not believe that the average employee is in a position to know where he can find the proper and best medical care for the type of injury which he has. He may simply go out to the nearest doctor or to his family physician who only has an occasional surgical case, and while there is much to be said for the good old family physician, I look very skeptically upon his entrance into the industrial accident picture.

The argument is advanced that the employee will do better in the hands of his own doctor. That may be true to a certain limited extent, but we must remember that the greater portion of all compensation cases demands surgical care rather than medical and that there are not many doctors engaged in general practise who are capable of handling the general run of industrial accidents. Industrial surgery is as distinct a specialty as gynecology, obstetrics, orthopedics, brain surgery or any other specialized line. This is so definitely recognized that many of the medical schools are advocating courses in traumatic surgery so that their students may go out into practice qualified to meet its demands.

What average practitioner is capable of treating the complicated fractures, head injuries and other surgical conditions arising from industrial accidents? It is hardly possible for him to follow the great changes going on all the time in the principles of treating fractures alone. New methods are pro-

gressing with lightning rapidity. Advances in balanced traction suspension have moved forward with rapid strides. The method of treating head injuries has become revolutionized.

The average practitioner knows almost nothing about these things which are in continuous demand and use in compensation cases

On the whole, the type of injury which can be safely assigned to the average family doctor who is not a surgeon, is the bruises and bumps, the cuts and sprains which in pre-compensation days were often taken care of by members of the family without going to the expense of having a doctor.

I am afraid that the great and unfortunate trouble with the family doctor who gets an occasional compensation case is that he is often thinking more of the size of his bill than he is of the quick recovery of the patient. He is prone to make a racket out of backs and sacro-iliacs and physiotherapy. He is unduly sympathetic.

Early return to light work is necessary to regain full function of an injured member and this cannot be accomplished when a doctor is carrying the patient along solely for the purpose of treating him over a long period of time. Regaining of function is largely up to the patient himself and it cannot be rubbed or baked or sparked into him if he is dormant and non-cooperative. And it is the doctor's business to assist him by manful support and not by sympathy or coddling. Sympathy is not of much use in surgery. We are all willing to take a vacation with pay, even on much less than we would get by working. It is a natural tendency. We need prodding to get the best that is in us, otherwise the vast majority of us would be sitting down and taking it easy.

On the witness stand the family doctor is at a distinct disadvantage. It is not only distasteful to him but practically impossible for the physician who has treated the litigant or his family over a long period of years to testify against him, and frequently he will testify to an impossible theory rather than offend his patient or stand a chance of losing his patronage.

I have been told by an employer of labor that it was his personal experience that free choice of physician is of no especial benefit either to the employee or to the employer. Generally speaking, the average person of ordinary means who pays for his own medical service has poorer medical attendance than the injured employee in one of our high-grade factories. The employee in the better grade

of industry, regardless of how menial his employment may be, is furnished medical service that a wealthy man would buy—while the medical attention selected by the employee himself very often does not rise much above that which can be obtained from the ordinary district nurse.

Of course, there are employers who select physicians purely on grounds of friendship, family relationship, or even nationality, but from my practical observation as a Commissioner, I would say that this is the exception rather than the rule because money talks and friendship doesn't go far in business when it has a tendency to put the employer of such friendship into the red. However, to safeguard the employee against such a situation, I believe it a proper provision for the Industrial Commission to have some power of supervision over the panels of physicians used by employers so that they may be compelled to have them large enough to allow the workman a choice. I might say that in the State of Connecticut this situation is taken care of by a certain amount of discretionary power which is given to the Commissioner. Likewise, if the plan of selection of physician by the injured employee is to prevail, I believe the Industrial Accident Commission should have some power of supervision so that the choice of physician shall be limited to men properly qualified to handle industrial accident surgery.

In most communities, it is safe to say that probably thirty to fifty per cent of the doctors are doing the bulk of the compensation work. They are satisfied with the present situation of right of selection by the employer. There is another twenty-five per cent who are indifferent and care nothing about compensation work. In fact, they prefer not to touch it; they do not like the inconvenience of going before the Commissioner to testify and of making our reports and forms, which seems to them an imposition. This estimated percentage may even be a little low. Then there is the other twenty-five per cent, the loquacious minority making the complaint, the element which favors and sponsors free choice of physician. A great many of these are not in a position to intelligently and successfully handle compensation surgery in its entirety. They might handle the minor injuries, and those are the injuries which some doctors are prone to string along, which brings the complaint of excessive medical charges to the Commissioner. The mass of compensation work requires real surgical skill.

(Continued on page 73)

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RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

ALBERT H. MILLER	<i>President</i>	Providence
ROLAND HAMMOND	<i>1st Vice-President</i>	Providence
JOHN E. DONLEY	<i>2nd Vice-President</i>	Providence
J. W. LEECH	<i>Secretary</i>	Providence
J. E. MOWRY	<i>Treasurer</i>	Providence

	PAWTUCKET	
	Meets the third Thursday in each month excepting July and August	
HENRY J. HANLEY	<i>President</i>	Pawtucket
THAD A. KROLICKI	<i>Secretary</i>	Pawtucket

	PROVIDENCE	
	Meets the first Monday in each month excepting July, August and September	
WILLIAM P. BUFFUM	<i>President</i>	Providence
P. P. CHASE	<i>Secretary</i>	Providence

	WASHINGTON	
	Meets the second Wednesday in January, April, July and October	
H. F. CRANDALL	<i>President</i>	Westerly
JOHN CHAMPLIN, JR.	<i>Secretary</i>	Westerly

	WOONSOCKET	
	Meets the second Thursday in each month excepting July and August	
W. A. BERNARD	<i>President</i>	Woonsocket
T. S. FLYNN	<i>Secretary</i>	Woonsocket

DISTRICT SOCIETIES

KENT

Meets the second Thursday in each month

FENWICK G. TAGGART	<i>President</i>	East Greenwich
L. J. SMITH	<i>Secretary</i>	Apponaug

NEWPORT

Meets the second Thursday in each month

JOHN RIDLON	<i>President</i>	Newport
ALFRED TARTAGLINO	<i>Secretary</i>	Newport

R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President. Dr. Robert C. O'Neil, President; Dr. N. A. Bolotow, Secretary.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Archibald C. Matteson, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

THE PEDIATRIC SOCIETY

We are glad to hear that the New England Pediatric Society is to meet in Providence on May 6th. The oldest member says that this has happened once before: usually the meetings are in Boston. This society has a membership of about two hundred and fifty, about half of which is in and around Boston with the others scattered throughout New England and sixteen in Providence. Until recently there was an evening meeting once a

month. This year the society met with the American Academy of Pediatrics in New York for two days, had two meetings each for an afternoon and evening in Boston, and now is meeting for an afternoon and evening with the Providence Medical Association. This is in line with the general trend of medical society activities. The meetings are longer, of higher quality and come less frequently.

The meeting in Providence will open at the Peters House of the Rhode Island Hospital at 4:30 P. M. with the presentation of cases until 6 P. M. to which all physicians are welcome. At 6:30 P. M.

there will be a dinner for the society and at 7:45 there will be a combined meeting with the Providence Medical Association at the Medical Library. We hope to meet many of our friends from the other New England States on May 6th.

THE BLOOD TRANSFUSION BUREAU

The recent establishment, by the Providence Medical Association, of a central bureau to furnish accredited donors for blood transfusion is a real step in advance. This organization supplies acceptable donors available at all times. The fees are standard and are reasonable. Every donor receives a complete physical examination, Wassermann test and hemoglobin and after he has given blood must have his hemoglobin tested again before he is certified to repeat.

The Bureau is modeled after the one which is operated by the New York Academy of Medicine and which has proved very satisfactory both to the profession and the public. The JOURNAL urges that both individually and collectively as members of hospital staffs the profession heartily support this new aid to the efficient practice of medicine and surgery.

NOTE

COMING EVENTS

May 7-8	New Hampshire Med. Society	Manchester
May 13-15	Medical Society of the State of New York	Albany
May 22-23	Connecticut State Med. Society	New Haven
June 3	Providence Medical Assoc'n	Providence
June 3-6	Massachusetts Med. Society	Boston
June 5-6	Rhode Island Medical Society	Providence
June 10-14	American Medical Association	
	Canadian Medical Association	Atlantic City
June 23-24	Maine Medical Association	York Harbor

TWENTY YEARS' OBSERVATION OF MEDICAL QUESTIONS UNDER THE COMPENSATION ACT

(Continued from page 71)

Casting aside the purely personal interests, we might say the selfish interests, of any particular class, I do not believe that it augurs for better service or more economical service to allow the employee without restriction to select his own phy-

sician. I do not believe in the State of Connecticut that it would improve matters, but it might create a situation which could easily get out-of-hand in a State like Connecticut where there is unlimited medical service, resulting in increased compensation costs and a real danger to the workman who may go out and make a haphazard and unwise choice because he doesn't know any better.

I believe that before any State with unlimited medical service should be ready to subscribe in toto to a program of selection of physician by the employee, there would have to be some very drastic and radical changes along certain lines in the medical profession itself. Unfortunately, we as physicians know that there are doctors who pad their bills, overtreat their patients, hospitalize them for needlessly long periods and indulge in physiotherapy long beyond the time when it can produce any beneficial results. These are practices that cannot help but add to the burden of compensation costs and that are a big factor in the production of that great class which for want of a better term are called neurotics; these are the practices that bring unfavorable criticism upon the medical profession and cause employers and insurers to haggle over bills. And the doctors responsible for this situation are for the most part the very ones who are now complaining because they are not getting the compensation business they seek.

A recent survey by an employer's group shows that there was approximately \$40,000,000 spent annually for medical services, \$34,000,000 of it going to the medical men and the rest to the hospitals, and these expenses seem to be going continually upward.

I believe that the only way our present system can be safely liberalized, in states with unlimited medical care, with any thought for economical administration, is to provide larger panels of competent men of ability and integrity who have prepared themselves to handle industrial injuries, so that there may be a greater distribution of the work amongst the medical profession and still have it properly done.

The employer of course does not want to have too great a spread in the number of doctors with whom he has to do business, because it would be difficult for him to follow the progress of his injured employees and to get from the doctors the necessary reports. With too many in the field, there would be a tendency towards less efficiency in the

conduction of the compensation system, and because the general public in the long run pays the bills, if efficiency is lacking and costs go up, it is the public from whom the complaint will come.

CORRELATION OF ORAL INFECTIONS WITH GENERAL SYSTEMIC INFECTIONS

By JOHN L. KENDRICK, B.S., D.D.S.

STATE HOSPITAL FOR MENTAL DISEASES, HOWARD, R. I.

The dental practitioner fully shares the responsibility of the early interpretation of oral and systemic diseases. Moreover, the dentist is not infrequently held responsible for untoward effects on his patient which result from failure to understand or to correlate existing symptoms, though they are often complex and puzzling.

Under certain conditions, grave blood diseases may be precipitated by minor surgical procedures commonly engaged in by the dentist in everyday practice.

In early stages of certain blood diseases, there are present mouth lesions which are of great diagnostic significance and the dentist who often sees these cases first should be able to think in terms of their relation to one another.

At the Rhode Island State Hospital for Mental Diseases, a mouth examination is a necessary part of every complete physical examination. In the examination of the mouth both outer and inner surfaces of the lips are viewed. Care is taken if a moustache is worn. It may alter appearances or conceal lesions entirely. The buccal mucous membranes are studied. Stenson's duct and its abnormalities are noted. Both hard and soft palate are inspected. The appearance of the anterior pillar and the region lying back of the third molar are given separate attention. Gross changes of the tonsils and oral pharynx are observed.

The tongue also requires attention. The medical profession has been examining the tongues of its patients for years and yet the exact meaning of the varying changes that occur is almost entirely unknown. The examination was frequently impressive, but their deductions, if of any real significance, were not recorded in medical literature in such a way that it is of any value to us. This is true of many other types of mouth pathology.

Reserved to the last for pathological examination are the buccal, labial and lingual sides of teeth and gums. Here oral conditions in which changes in the blood may occur as a result of local infections are observed as: pyorrhea, abscess, periostitis, trauma, osteomyelitis, cellulitis and post-operative sepsis.

The salivary glands are examined and the lymph nodes in the sub-mental, submaxillary, parotid and deep cervical regions are palpated for swellings as they occur here as secondary to mouth lesions.

Pathologic conditions which produce symptomatic mouth lesions and symptoms are:

1—Diseases of the blood and blood forming organs: anemia, leukemia, purpura, Hodgkin's disease, agranulocytomia, erythemia, hemophilia and Banti's disease.

The clinical course and particularly the blood picture, varies sharply according to the pathologic peculiarity of each type, the nature of which is determined only by hematologic study and differentiation. An erroneous diagnosis, an extraction or other contraindicated surgical or medical treatment may prove fatal.

2—Symptomatic mouth lesions secondary to changes in the blood produced by drug and chemical poisons: arsenicals, mercurials, occupational chemical poisons, benzene and benzene-chain derivatives, barbituric acid and barbitol group drugs, the roentgen-rays, gamma rays of radium, other toxic agents, lead poisons and silver preparations.

3—Changes in the blood caused by parasitic, virus and other infections: yellow fever, intestinal parasitic conditions, sprue, malaria, typhoid and influenza.

4—Mouth lesions secondary to nutritional deficiencies, metabolic and other diseases: sprue, scurvy, malnutrition, pellagra, diabetes, endocrine imbalance, febrile disease, renal disease, syphilis, tuberculosis and pemphigus.

Aside from clinical findings, the blood picture alone is the determining factor in correct diagnosis, enabling one to discover the particular major hematologic defect responsible for the given disease. Some systemic diseases are marked by characteristic abnormal manifestations about the mucous membrane of the mouth, the gum tissue, the teeth and the investing structures. These lesions do not constitute disease in themselves, but they are sequels of disease elsewhere in the body and are not due to local conditions. Usually, with the

disappearance of the constitutional disturbance, the local condition clears up also. Therefore, when a mouth lesion is found which does not seem to be caused by local irritation or injury, or does not respond to the usual local treatment, it is well to investigate the general condition of the patient to determine whether there is a more general cause of the trouble. There are many cases on record wherein acute exacerbations and other minor surgical procedures results with fatal termination.

A few of the outstanding relationships between mouth conditions and systemic conditions have shown the necessity of a careful examination of the mouth of the patient who is to receive a satisfactory diagnosis. It is also valuable from the standpoint of preventive medical and dental work.

OBITUARY

DR. OSCAR M. UNGER

1890—1935

Dr. Oscar M. Unger of Pawtucket, Rhode Island, died on January 27, 1935, from a cerebral hemorrhage. His death came suddenly with little or no warning. He had not been under any regular medical treatment nor had he complained of ill health preceding his death. He was attended in his last illness by Dr. Charles Farrell.

Dr. Unger was born in 1890 in Homeworth, Ohio. His father was a physician and general practitioner who died at the age of 62. His mother is still living. He also has one sister who is married and living in the middle west. He is survived by his wife, Mrs. Rachel Unger, whom he married in June, 1917, and a son, Albert, who is now 9.

Throughout his medical career he was interested in X-ray work. He was a graduate of the University of Michigan, 1915, where he received both his B.S. and M.D. degrees. He had his internship at the Minneapolis City Hospital. Following this he was in general practice in Monroe, Michigan, where he emphasized X-ray diagnosis.

In 1921 Dr. Unger went to Cook County Hospital in Chicago, where he did more work in his specialized field. He then continued this work in Ann Arbor, Michigan, in the X-ray department there. Following this he went to Toledo where he practiced his specialty for four years.

Following this he went to the Jackson Clinic in Jackson, Michigan, where he was roentgenologist

in this well-known private clinic. He was then brought to Providence to join the staff of the Homeopathic Hospital, where he remained for four years from 1928 to 1932. From that time to the time of his death, he was in private practice in Pawtucket. He was associated with the roentgen-ray department of the Notre Dame Hospital, Central Falls.

During the time he was in Pawtucket, Dr. Unger conducted a series of broadcasts over WPRO. He was very much interested in the social aspects of medicine and reading and study along these lines were of special interest to him. He was unusually well-read and had a broad knowledge along literary and cultural lines. He was also interested in community activities and was associated with the Pawtucket Committees of the S. P. C. C. and the R. I. S. M. H. and in addition gave of his time during the last Community Chest campaign in Pawtucket and Blackstone Valley. Dr. Unger was a member of representative medical societies, and in addition attended regularly the meetings of the Boston Roentgen-ray Society.

Dr. Unger and his family attended the First Congregational (Unitarian) Church during their residence in Providence. Since living in Pawtucket, they have affiliated themselves with the Unitarian Church there.

HAROLD F. CORSON, M.D.

HUGH E. KIENE, M.D.

DR. S. NEWELL SMITH, JR.

1881—1935

Dr. S. Newell Smith, Jr., died January 27, 1935, at his home, 209 Wayland Avenue, at the age of fifty-three years. He had enjoyed his usual good health up to the evening of his initial prolonged chill. What was at first diagnosed by his attending physician as a severe attack of "grippe," rapidly developed into pleurisy of his left lung, pneumonia, then double pneumonia, to which he succumbed at the end of four days. The invading organism proved to be the highly fatal Type IV variety and resisted the use of all modern treatment, including oxygen and serum.

Dr. Smith was born in Providence, March 19, 1881. After completing his preparatory education at the English and Classical School, formerly known as the Mowry and Goff School, in 1899, he entered Brown University, which he attended for

two years, before taking up the study of medicine at Cornell University. He received his M.D. degree from the Cornell Medical School in 1905, and served his internships at the Rhode Island Hospital and the Providence Lying-In Hospital.

He began the general practice of medicine in 1908, and became so absorbed in his work that specialization in any limited field did not appeal to him. His genial and courteous manner, together with the interest and enthusiasm he displayed toward each individual patient, won and retained for him a host of friends and a large practice.

Dr. Smith was never a typical club man. He enjoyed an occasional game of golf, but for the most part preferred to spend his spare time enjoying the company of his family. They had their summer home at Sakonnet, frequently took motor trips during his vacation, and in 1930 the whole family spent several weeks abroad.

He was a member of the Providence Medical Association, the Rhode Island Medical Society, and the American Medical Association. He was also a member of the Providence Chamber of Commerce, the Central Congregational Church, the Brown University Alumni Association, the Delta Kappa Epsilon fraternity, the Phi Alpha Sigma fraternity at Cornell Medical School, the Sakonnet Golf Club, and the Sons of the American Revolution. He was attending physician to the Home for Aged Colored Women, and was on the Courtesy Staff of the Homeopathic Hospital.

Dr. Smith married Miss Celia S. Peckham of Providence, on June 1, 1903. She survives him with two daughters, Mrs. George Paul Slade and Miss Ruth Greene Smith. He is also survived by his father, Samuel N. Smith, and by two grandchildren, Celia Peckham Slade and Ruth Tucker Slade.

The funeral services were held in the Central Congregational Church and were attended by a large number of the medical fraternity and friends. Interment was in Swan Point Cemetery.

CHARLES E. HAWKES,
ARTHUR T. JONES.

DR. PASQUALE CONCA
1873—1935

Dr. Pasquale Conca was born in Marzano Appio, Italy, January 12, 1873, and died January 28, 1935,

following a week's illness of pneumonia. He was educated in the Regio Liceo Agostino Nifo of Sessa Aurunca, province of Naples, and entered the Medical School of the Royal University of Naples in 1893, graduating in 1899. Immediately thereafter he was appointed assistant surgeon of the Ospedale Degli Incurabili where he served for five years, greatly esteemed by his superiors. In 1905 he came to Providence and established himself in the practice of medicine. During his thirty years of practice he was held in high esteem by his patients for his kindness and faithfulness toward them. His wonderful personality, the exemplary habits of his life and his energy and intelligence, always directed toward the good of others, won for him the respect of his fellow members of the medical profession. Those who had the good fortune to know him intimately feel his loss greatly.

What nobility of heart he revealed when his only and older brother died, leaving four children! He thought it was his duty to dedicate himself to the care of the orphans, to be near them, and to attend to their education. He left a lucrative practice here and departed for Italy in 1919, where he remained five years.

Dr. Conca was an eloquent speaker and took an active part in public ceremonies, where he gave able talks on patriotic, social and educational questions. A noble object of his life in his last years was the diffusion of the Italian language and literature in the schools of Rhode Island. He dedicated himself to this not only for the advance of learning but to promote a better understanding between Italy and America. His last impressive address in public was given on last Columbus Day at the Dexter Training Grounds.

He was a member of the Rhode Island Medical Society, American Medical Association, Providence Medical Association, Malpighi Medical Club of Providence. At the monthly meetings of the last two associations he was a constant attendant. Of the Malpighi Medical Club he was one of the founders, a past president and treasurer at the time of his death.

VITO L. RAIA,
ANTHONY CORVESE.

DR. HERBERT SPENCER ABEL

Dr. Abel died suddenly at the Memorial Hospital on December first after an illness of four weeks.

He was born in Bradford, Massachusetts, on August 1, 1903, and spent his early childhood in Lawrence. In 1913 his family moved to this city and he made his home here until his death. After attending Point Street Grammar School and Classical High School, he entered Harvard College and received his B.A. from that institution in 1925. While at college he was active in undergraduate affairs and was a member of the Glee Club. He graduated from Cornell University Medical College in 1929 and served internships at the Beth Israel Hospital in Boston and at the Skin and Cancer Hospital in New York. He opened his office at 116 Waterman Street in Providence, limiting his practice to dermatology.

He was on the staffs of the Beth Israel Hospital in Boston and the Rhode Island, the Charles V. Chapin, and the Miriam Hospitals in Providence. He was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association, and the Jacobi Medical Society, acting as treasurer of the latter organization at the time of his death. Posthumously he was elected a member of the New England Dermatological Society.

In 1929, during the last year at medical school he was married to Miss Adele Rubinstein of Brookline, whom he met while at college. Their devotion to each other and their happiness and contentment during those trying years were an inspiration to all who knew them.

Dr. Abel was 31 years old when he died, a young man. He had been in practice but for two years. In this short time he gained the respect and confidence of his colleagues. His earnest, conscientious application to his work, not only in private practice but also in clinics, can best be shown by the many expressions of sympathy of those with whom he worked. His keen interest and studious attitude toward his work is exemplified by his weekly trip to Boston, throughout the year, to attend to his hospital duties there.

Dr. Abel was a friendly, sympathetic, scholarly man. His interests were many and varied. He was an avid reader and had a keen sense of literary judgment. He was a member of the Repertory Players and was much interested in their productions. His large circle of friends remember him for his kindness, his even temper and good spirits, his good fellowship and fine sense of humor, and his intellectual honesty.

He is survived by his widow, by his father, Bernard, and mother, Anna Koydinobor Abel, and one brother, A. Lincoln Abel, of this city.

Signed:

MILTON GOLDBERGER, M.D.
JACOB GREENSTEIN, M.D.

ALVAH ARLINGTON FISHER, M.D.

Born, Bangor, Pa., May 29, 1870
Died, Providence, R. I., February 15, 1935
Aged 64 years

It is with sincere sorrow that we announce the death of Dr. A. A. Fisher, which occurred at the Rhode Island Hospital on Feb. 15, 1935. He had been in failing health for several years and finally succumbed to the fatal illness of Aleukemic leukemia. He was the son of the late Rev. George R. and Mary E. (Storm) Fisher. He received his early education in the public schools of Pennsylvania and later attended Central Pennsylvania College at New Berlin, Pa. On leaving college he obtained a position with the Pennsylvania Railroad in whose employ he remained three years, and then entered Jefferson Medical College. After studying medicine there for three years he entered the University of the South at Sewanee, Tenn., from which institution he received his degree. Immediately after graduation he came to Providence where he practised until the time of his death.

At the outbreak of the World War, Dr. Fisher was commissioned a Captain in the Medical Corps and was assigned to duty with the Coast Defense troops at Fort Strong, Mass., and later transferred to Fort Andrews, Boston Harbor. In May 1918 he was placed in charge of the Military Hospital at Fort Revere, Mass. In the Autumn of 1918 he was promoted to the rank of Major and assigned as Chief Surgeon in charge of Medical Affairs in the Boston Harbor area where he remained until being discharged from the Service in the Spring of 1919. Joining the Medical Reserve Corps he was commissioned Lieutenant Colonel.

Dr. Fisher was engaged in General Practice but was interested in Eye, Ear, Nose and Throat specialty in conjunction with it. For several years he was an Extern in the Ophthalmic Clinic of the Rhode Island Hospital Out-Patient Department.

Dr. Fisher was a member of Overseas Lodge of Masons and after serving in the various offices was elected Master of the Lodge on Nov. 11, 1932. He was a member of Prov. Chapter No. 1, Royal Arch Masons; Thomas Smith Webb Commandery, No. 51, Knights Templar; and Palestine Temple of the Mystic Shrine. He was also a Past Grand of Pilgrims Lodge, I. O. O. F.; Past Grand Dictator of the Knights of Honor; a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association; Past President of Narragansett Bay Chapter, National Sojourners; Past Commander, Oliver Hazard Perry Camp, Heroes of '76; and a member of Providence Central Club.

Funeral services were held at Carpenter Jenks Funeral Home, Sunday, Feb. 24th, and in accordance with his request the remains were cremated. The following Sunday a memorial service was held at Overseas Lodge, and at the conclusion the ashes were buried at Highland Cemetery, Lakewood, beside his father and mother, with full military honors.

The only surviving relative is Dr. John L. Fisher of Oswego, N. Y., formerly of Providence. The sympathy of the Society is extended to him.

Signed:

HOWARD E. BLANCHARD
JOHN B. FERGUSON

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William P. Buffum, Monday evening, March 4, 1935, at 8:50 o'clock. The records of the last meeting were read and approved. Letters were read announcing a talk by Dr. Horrax at the State Institutions and a talk on Chemical Industrial Hazards at the Metcalf Library.

The application of Margaret B. Ross having been approved by the Standing Committee, she was elected to membership.

The Standing Committee recommended that the committee on changes in the hall be authorized to spend not over \$3,000 for painting, redecorating, changing acoustics, providing new seats, etc., and it was so voted.

Dr. Chafee reported for the Transfusion Committee.

Dr. V. L. Raia read an obituary on Dr. Conca, Dr. Hawkes on Dr. S. Newell Smith and Dr. Corson on Dr. Unger. It was voted to spread these on the records and send copies to the families. The President appointed Dr. Blanchard and Dr. Ferguson as obituary committee on Dr. A. A. Fisher.

The amendment to the By-laws presented at the annual meeting was adopted.

Dr. William S. Streker, chairman of Emergency Relief Committee, reported that the plan was not functioning in outlying districts and the president was authorized to make appointments as may seem desirable of men in those districts to cooperate with the Providence Committee on Emergency Relief.

The first paper of the evening was by Dr. Henry E. Utter on "Twenty-five Years in Pediatrics," this being the period since he spent a summer on the Boston Floating Hospital, and he took up the outstanding developments in that time. The treatment of rickets has advanced with our knowledge of Vitamin D. The diagnosis is easily made by a routine examination. It occurs mostly in fall and winter babies when sunlight is at a minimum, and it can be handled with cod liver oil and phosphorus with vitamin D milk of value. Sudden thymus deaths are now of historical interest only, it being recognized that these are practically always acute streptococcic infections. Proper infant feedings have brought the mortality down, the varieties of food given in early months have increased greatly and the periods between have been much lengthened and lighter and looser clothes have added to the comfort. In 1912 there were 258 deaths here from gastro-intestinal diseases—in 1934, twelve deaths. Tuberculosis deaths under five years have dropped from 63 to 5. Asthma and eczema are now recognized by skin tests, rheumatic fever, chorea and endocarditis have decreased; little progress has been made with respiratory diseases but he paid a tribute to the worth of the Burgess oxygen box; diphtheria is almost gone, measles are not bad, and pertussis is passing. Child psychology studies are doing much, with the Bradley Home of great value in this community. In this period the infant deaths per 1,000 births have dropped from 145 to under 50. For the future he felt that 75% of the work would be preventative. Dr. Newsam discussed the paper.

The second paper was by Dr. Thomas H. Lanman of Boston on "Some Surgical Aspects of Pediatrics." Two points of view towards children's surgery he thought bad: 1. That it is regular surgery but on a small patient. 2. That children do not stand surgery well. They should, if properly handled. Recognize fluid loss and treat properly. Preserve the body heat. Handle gently. Use proper anesthesia. So called thymic deaths on the table are probably poor anesthesia. Do as little operating as possible in the first two years and avoid it during the respiratory disease seasons and hot weather. After this he discussed in detail all the more common surgical situations which arise in childhood, emphasizing the age periods for operations. The paper was discussed by Dr. Barrows.

The meeting adjourned at 11 P. M.

Attendance, 141.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE, *Secretary*.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

BOOK REVIEWS

THE AUTONOMIC DISEASES OR THE RHEUMATIC SYNDROME. By T. M. Rivers, M.D. Publisher, Dorrance & Company, Inc., Philadelphia.

This book of 262 pages, appendix and bibliography, represents an attempt on the part of its author to ascribe to those agents causing rheumatic conditions another action upon the nervous system, causing autonomic disfunction. Thus, as indicated

by the title, rheumatic and autonomic diseases are linked one to the other. Following a chapter on the anatomy of the autonomic nervous system, Dr. Rivers discusses the agents which he believes are responsible for the morbid tissue changes in arthritis, and which he feels act also upon the nervous system, creating neurogenic factors in a wide variety of disease states. Among other agents, amine substances are emphasized, and the author states that through his study of the amines he discovered two important actions; one, that amines act directly upon fibrous and elastic tissue, causing morbid changes therein, and second, that "amines sometimes pass their morbid action through the autonomic nerves." His experiments, however, are poorly described and there are no direct references to the bibliography on these points. While his contention is interesting and warrants further study, the evidence as presented is not very convincing.

Throughout his discussions of such conditions as hypertension, asthma, agina pectoris, constipation, peptic ulcer, angioneurotic edema, etc., Dr. Rivers clearly recognizes the neurogenic factors which so often play an important part in their production. The postulate, however, that toxic agents acting through the autonomic nervous system are responsible for these neurogenic factors, is inadequately supported by the evidence he presents and in many instances clashes with modern knowledge of psychobiology. In fact, the author compromises his toxic agent theory by his frequent references to the role that purely emotional disturbances play in the production of physical symptoms.

In the chapters on arthritis and fibrositis, Dr. Rivers' work is worthy of commendation. His discussion of physical types and the diseases they fall heir to is also well done. If he had gone further, however, and discussed the established correlation between physical and emotional types, the relationship between the mental and physical factors in disease would have been clearer.

In conclusion, one feels that while Dr. Rivers has presented an able discussion of the neurogenic factors in disease, he has without sufficient evidence appended a postulate that the same agents operative in the production of rheumatic states are also responsible for autonomic disfunction.

(Continued on page XXI)

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

PLASMA CELL LEUKEMIA: Osgood and Hunter, *Folia Haematologica*, 52:369, 1934, report the second observed case of this disease. They give evidence that the plasma cell is not derived from the lymphocyte and suggest the possibility that these cells are normal constituents of the blood and bone marrow and just as distinct entities as any other leukocyte.

* * *

NON-OPAQUE FOREIGN BODIES IN THE AIR PASSAGES: Their X-ray diagnosis and localization. In looking over the literature on this subject I find that Manges, *The British Journal of Radiology*, April 1926, goes into detail, showing that non-opaque substances such as pieces of crackers, peanuts and other substances can cause great trouble, and even death. Manges shows how the X-ray diagnosis can be made.

* * *

EARLY DIAGNOSIS OF WHOOPING COUGH: Sauer, *The Journal of Pediatrics*, 5:244, 1934, shows how cough plates are used to diagnose this disease early, using a special potato medium. Most patients are seen so late that diagnosis can not be made from the cough plate. (At the present moment there is a strange epidemic of pertussis—many of the patients are said to have had the disease before. It is a vile cough, prolonged for several weeks, the spasms are violent. Girls have the disease more severely. Cough plates, if used early, clear the diagnosis. White blood counts showing a leukocytosis and a smear revealing a lymphocytosis is rather conclusive evidence of pertussis. However, the smear may show a lymphocytosis on certain days and leukocytosis is not seen constantly. Therefore several blood examinations are necessary. All infants and children should be immunized against the disease with Sauer's vaccine. To be effective it should be used four months before exposure to a case.—M. W. T.)

* * *

MAXIMUM DOSAGE POLLEN THERAPY. Each observer has his own technic. Brown, *The Jour. of Allergy*, 6: 86, 1934, believes in maximum dosage for hay fever. By gradually working up to large enough preseasonal doses, namely, from 100,000 to 200,000 pollen units, failures are eliminated from hay fever therapy, and perfect results prac-

tically assured. He uses 1 to 2 cc. of 10 per cent pollen extracts. Brown gives them with perfect safety. (Some time ago a clinician told the writer that he was more afraid of small doses of any drug than large ones. He said that he would be afraid to give 1/10,000 grain of morphine. Since we have been using huge doses of vaccines our results are better. Even with "cold" vaccines there seems to be some hope with large doses. The same applies to all vaccines. We have been giving too small doses. As for pollen extract therapy, the writer believes in these maximum doses continued through the season, at weekly intervals after the preseasonal treatment is completed.—M. W. T.)

* * *

GAIN OF WEIGHT IN PREGNANCY: (The idea that overfeeding the patient may make the infant overweight seems to be inaccurate. There are other factors, including heredity.—M. W. T.) Hanley, *The Western Jour. of Surgery, Obs. and Gyn.*, May 1934, states that if a mother's gain is under 20 pounds she may expect a baby of average weight, and if her gain in weight is considerably greater than this she may expect a baby a few ounces heavier than average weight, but not necessarily so. Hanley does not believe that we can control the weight of the infant.

* * *

PHYSIOLOGY OF EXTREME OLD AGE. Benedict and Root, *New Eng. J. of Med.*, 211: 521, 1934, have been studying a patient 91 years old, going into every detail. The authors conclude: "Were it possible for human beings as a whole to lessen the strain of mental anxiety, worry, and care, it would be rational to suppose that this very process would tend to longevity." (I am enthusiastic about some program which will guarantee social security—for old age, unemployment and illness. I see no reason why human beings should not be guaranteed a little peace. With so much plenty—so much misery. Humans won't go much longer selling apples on street corners, and they won't suffer mental anguish much longer without revolting. I don't mean socialized medicine, but some sort of guarantee that a man who is out of money can get adequate treatment—some insurance if you wish which will take care of his doctor's bills just as it does for compensation insurance. That wouldn't interfere with the practice of medicine.—M. W. T.)



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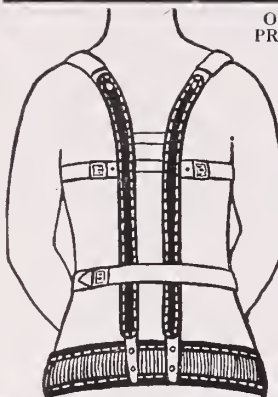
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NATURE'S WAY. By Victor C. Peterson, M.D. G. P. Putnam & Sons, Publishers, New York.

Dr. Peterson has in a short book of 74 pages discussed very ably the subject of birth control by observation of fertile and sterile periods of the menstrual cycle. He has gone to considerable pains and has devoted much research among the authorities to prove his points and gives a quite complete list of references.

If we could be as certain as Dr. Peterson is and as the authorities would have us believe, there is no question but what this method of birth control would be far superior to any other from all standpoints, esthetic, moral, and religious. In so complicated a mechanism as the human reproductive apparatus, it seems to us, however, that there may be opportunity for quite widespread variations, and although our knowledge has improved in the last few years, we do not yet feel that we can be quite so positive of the effectiveness of this method.

The book makes very interesting reading and the results of this method of handling what is today recognized to be a vital problem will be watched with great interest. We recommend the book to our readers who are interested in this subject.

MISCELLANEOUS

OCCURRENCE AND TREATMENT OF NEUROLOGIC CHANGES IN PERNICIOUS ANEMIA. S. M. Goldhamer, F. H. Bethell, Raphael Isaacs and Cyrus C. Sturgis, Ann Arbor, Mich. (*Journal A. M. A.*).

Presents a study of 461 patients, extending over a period of seven years, concerning the occurrence of neurologic and mental manifestations in pernicious anemia and determine the effect of various types of antianemic therapy on them. Clinical evidence of spinal cord changes has been noted in 89.2 per cent of the cases and cerebral symptoms in 64 per cent. Regardless of the type of adequate

antianemic therapy, improvement in symptoms of the central nervous system was observed in less than 50 per cent of the cases and improvement in signs in about 2 per cent. Antianemic therapy, when given in sufficient amounts, does not have a specific curative effect on spinal cord degeneration but contributes only indirectly to the improvement of the manifestations of the central nervous system. Whereas younger patients appear to have a better prognosis, sex and duration of the disease do not appear to be significant factors. Great individual variation is noted in the progress of the disease in different persons and clinically there are slow and rapid types. Such complications as genito-urinary infection, trophic ulcers and pneumonia, when present in association with marked central nervous system degeneration, are usually indicative of a poor prognosis.

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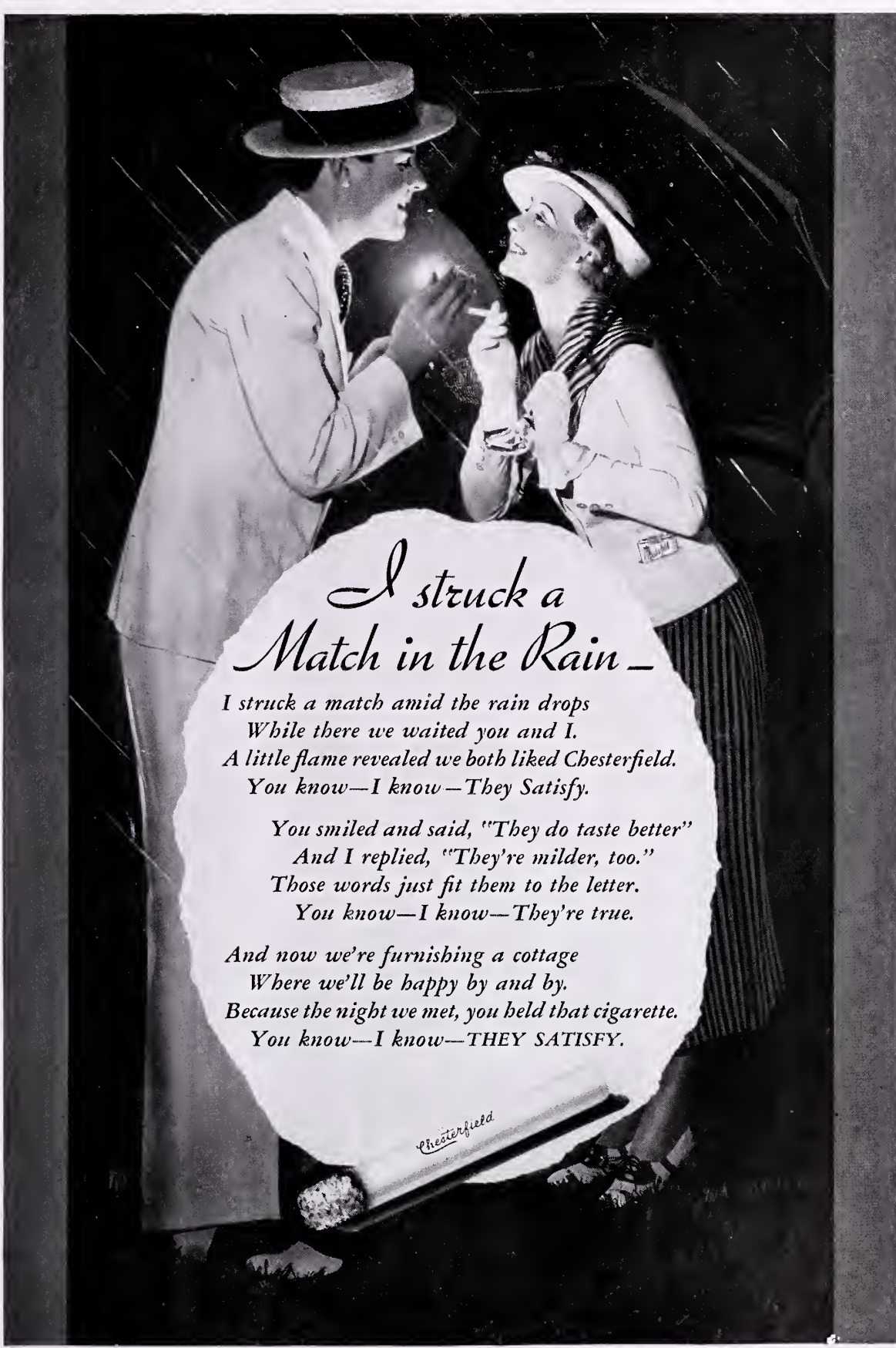
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LATENT AVITAMINOSIS: THE "TWILIGHT ZONE" OF NUTRITION

● Each passing year discloses that the science of medicine has made further application of the results of biochemical research. The time will come when the physician will rarely see examples of extreme human avitaminosis. The high vitamin requirements of infancy and childhood are clearly recognized; they are fulfilled by proper supplements to the diet. The cooperation of intelligent parents will certainly aid in decreasing the incidence of deficiency diseases of childhood.

The matter of the adult vitamin requirement has also received attention; the average individual understands his dietary needs, in a general way. As a result, if the pellagrin be excepted, the practitioner today seldom encounters *extreme* vitamin deprivation in his patients. The fight against vitamin deficiencies is changing in aspect; the problem now is to combat *suboptimal* rather than *subminimal* vitamin intake.

In 1920, Hess described the condition of subacute or "latent scurvy". Evidence since accumulated indicates that similar conditions may exist in respect to the other essential vitamins. This latent avitaminosis has been aptly termed the "twilight zone" of good nutrition (1).

Latent avitaminosis is a state of ill-health difficult to define; it may be characterized

by a vague, indefinite sense of ill-being; it is a condition, however, which responds to proper diet under medical supervision; and among the most valuable foods available for diets in cases of latent avitaminosis are canned foods. The literature is replete with articles relating to the vitamin values of canned foods; several of these are particularly pertinent to the present discussion (2).

Two species of laboratory animals, the albino rat and the guinea pig, were carried through ten and eight generations, respectively, on a diet which consisted entirely of combinations of canned foods. No additional vitamin supplements, such as are commonly employed in the breeding or rearing of such animals, were necessary. The varied canned food diet supplied all factors, vitamin or otherwise, for the successful fulfillment of the life cycle, namely growth, maintenance, reproduction and lactation.

The significance of these findings is obvious. The physician may prescribe a diet containing a wide variety of canned foods with the confidence that the combination will supply essential vitamins in amounts consistent with the amounts of the vitamins present in the raw materials from which the canned foods were prepared. Whether additional supplementation with specific vitamin-rich foods or concentrates is indicated, is properly a matter for medical determination.

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(1) J. Amer. Med. Assn. 101, 127 (1933)

(2) Ind. Eng. Chem. 23, 1064 (1931)
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ORIGINAL ARTICLES

TWENTY-FIVE YEARS OF PEDIATRICS*

By HENRY E. UTTER, M.D.

122 WATERMAN STREET, PROVIDENCE, R. I.

Pediatrics deals with growing children. The problems and diseases of childhood we have always had, but the domain of pediatrics as a separate branch of the practice of medicine is relatively new. Hence it is not surprising that the past twenty-five years have been fruitful ones in the growth of medicine along this line.

It is practically impossible to take up all the advances in pediatrics many of which have been coincident with advances in general medicine. Our knowledge of vitamins has by no means come through the study of pediatricians alone, but has been coupled with the work of the biologist, the chemist, and the physiologist. Until we learned of vitamins we did not know that vitamin C of orange or of tomato juice was the curative factor in scurvy nor that vitamin D was the substance in cod liver oil which fostered the proper metabolism of calcium and phosphorous to produce the resultant cure of rickets.

Surgery in children has progressed rapidly through advances in the general surgical field. Our knowledge of the diseases of the nose and throat has increased through the efforts of our practitioners in the realm of nose and throat. Our ideas in the diagnosis and treatment of kidney conditions have changed hand in hand with the work of men whose study has been devoted to the diseases of kidney and bladder. The scope of this talk is too small to cover all of these subjects, hence it is my intention to speak of only a few conditions of infancy. The doctor in general practice must be a pediatrician and it must be admitted that in many ways the pediatrician is a general practitioner among children, with possibly the diseases of early infancy and feeding as his only specialties. The

conditions mentioned in this talk are those which should be of interest to both the man in general practice and the pediatrician.

Rickets

Of all the diseases of infancy and childhood which have become popularized in the medical and lay press in the past 25 years, rickets probably heads the list. We have come to appreciate that vitamin D is the potent factor in the prevention of rickets and that this vitamin is a necessary element in the production of proper calcium metabolism. Proper food and an abundance of sunlight are also important in the prevention of rickets.

The diagnosis of rickets should be a simple matter, but groups of men working with hospital facilities feel that an X-ray picture is necessary to make the diagnosis while the man in practice feels that craniotabes and beading of the ribs are sufficient to confirm a diagnosis. Both are right for either the clinical manifestations or the X-ray findings are of sufficient importance to make a diagnosis.

Decidedly too much importance has been given to rickets in the public mind; in fact, I am quite convinced that the average infant displaying early signs of rickets can and should be treated and cured without an apprehensive mother even knowing that her infant has any manifestation of this condition.

Rickets may exist in the breast fed baby as well as the artificially fed one, but really the only infants requiring regular observations in this matter are those born in the fall and winter months. Those born in the spring and summer months are so well fortified by sunlight that we need have very little if any apprehension about their developing rickets. This condition may develop at a latter age, but it is with the infant that we must be primarily concerned. The vulnerable period is between the ages of three and eight months. Premature infants are particularly prone to rickets merely from the reason that they are so closely housed and that their inherent lack of vitality precludes the possibility of sun baths for the first few months of their lives.

Perhaps the most outstanding feature in the problem of rickets lies in the chaos which we face concerning the treatment of the disease. Cod liver oil in sufficient doses always did prevent and cure

*Read before the Providence Medical Association March 4th, 1935.

rickets and when we unite oil of phosphorus one drop with one teaspoonful of cod liver oil we have an antirachitic without a parallel. Why, then, all the confusion? Merely because of the fact that when vitamin D was brought forth as the important factor it was discovered that ergosterol when irradiated prevented the development of rickets in white rats. From this was developed the idea of rat units. We now have viosterol, cod liver oil concentrate, viosterol and cod liver oil, salmon oil, halibut liver oil, and the latter united with viosterol. That they all have their influence on the chemistry of calcium metabolism there can be no doubt but that any of them have an advantage over the proper dosage of cod liver oil and that all of them do not clinically live up to all that is written about them, there is no question. The most despicable part of the story is that the drug detail men have become the therapists of rickets; so well armed are they with their baffling reports of the enormous value in vitamin A and D units of their particular products that we dare not refuse to use these products, particularly as the same men appear with their pockets bulging with reprints of articles of eminent authorities on the subject. How these men must smile behind the backs of the highly gullible members of the medical profession whom they visit? This is by no means true of vitamin D compounds. Our offices are now flooded with tablets, capsules, and liquid compounds containing all kinds of mineral salts, extracts of the glands of internal secretion, potent medicines in the treatment of coughs, stomach disease and kidney diseases, etc. Indeed the average physician is fast losing the art of writing a prescription and every pharmacist spends much of his time hunting for the preparation of some drug firm which happens to be the favorite of each individual physician.

Some medical writers on the subject have gone so far in extolling the virtues of viosterol in the care of rickets that when craniotabes develops, which it very commonly does while using viosterol, they have coined the word osteoporosis to cover up the shortcomings of viosterol. Of course, osteoporosis is craniotabes would but they admit it. In many of their articles they point to the fact that the X-ray pictures show no characteristics at the epiphyses of the long bones but they in turn fail to call attention to the fact that craniotabes often develops before we have any X-ray evidence of rickets in the long bones. On the other hand it must be admitted that occasionally we can make an X-ray diagnosis before

we can a clinical one but I believe that this is not the rule when regular clinical observations are made. Suffice it to state that Davidson and Merritt, in a masterly article on the use of viosterol in the treatment of rickets in the premature infant state "that viosterol 250D in a maximal dosage of 20 drops a day has been inadequate for the complete protection of the premature infant"!¹ If this be true of a five or six pound baby, what result may we expect in a full sized infant?

So complete has been the campaign of the above mentioned detail men that we find pregnant women taking substitutes for cod liver oil for the prevention of rickets in their offspring when it is a well known fact that rickets rarely ever develops within three or four months post partum, which is long after the baby has passed from under the observation of the obstetrician. How could satisfactory observations be made under such conditions?

Let us admit that these preparations contain vitamin D, but let us not forget that they are not substitutes for cod liver oil and let us not forget that more than likely that cod liver oil, by its union with the calcium in the milk, forms a calcium soap which is readily assimilated and may be a very important factor in the prevention and cure of rickets.

We must not leave the subject of rickets without mentioning the valuable addition of vitamin D milk to our armamentarium in the prevention of this disease. This is our most recent advance and it is an important one. Vitamin D milk should be a certified milk containing the vitamin D equivalent per quart of three teaspoonsful of cod liver oil. Any milk may be irradiated to a specified vitamin D potency but when we prescribe a vitamin D certified milk we give the baby the advantage of taking the best milk obtainable.

For one thing we may be thankful to the propaganda in favor of cod liver oil or other of the vitamin D preparations, namely the disappearance of tetany and with this a concomitant elimination of the majority of infantile convulsions, most of which were a part of tetany, the manifestation of rickets involving the nervous system.

Thymus Gland Disease

The conception of thymus gland disease has probably undergone more radical changes than that of any other condition of infancy or childhood. That thymic asthma may very rarely exist and that there may be an occasional child who has attacks of

cyanosis from pressure of an enlarged thymus must be admitted, but that sudden thymic deaths as such must be relegated to history is a certainty. In view of recent studies on this subject, we must attribute these sudden deaths to an acute overwhelming streptococcus infection.²

Autopsies, in recent years, performed on infants who have died suddenly and whose deaths have been ascribed to thymus disease, have revealed oedema of the brain, tracheobronchitis, bronchopneumonia and other manifestations of an acute severe toxæmia. Streptococci have been found in the lungs, the heart's blood and other body tissues. Fifteen years ago I presented to this society a specimen of a thymus gland removed at autopsy, as a cause of sudden death; when I recall the symptoms of choking which preceded the death I realize that the cause of death was more than likely due to an acute respiratory infection. Another child suffered from croup which did not respond to ordinary treatment; she was removed to the City Hospital where she was intubed and later tracheotomized without avail. At autopsy an enlarged thymus was found and the death attributed to that. Had cultures been taken we would undoubtedly have found that death was due to a streptococcus infection. For many years we have marvelled at the size of thymus glands removed at autopsy when death had resulted from bronchopneumonia, nephritis or other conditions, in which the thymus had given no symptoms whatsoever. How often, too, we have ascribed death to thymus disease when the thymus removed at autopsy was really too small to have caused any fatality even with our former ideas of such a possibility.

It is time that medical examiners when called to see an infant who had died suddenly dismiss from their minds the probability of that death having been the result of thymus disease and likewise such a death should not be attributed to "suffocation." If an autopsy cannot be done we would save the family much mental anguish by placing this death in the category of an acute infection.

For some years it has been quite a fad among the well to do to have an X-ray picture taken to determine the presence of an enlarged thymus gland before a surgical procedure involving the use of a general anaesthetic. This probably has very little real value, but I believe we should pursue an intermediate course at present in regard to the advisability of such a picture. If the family requests such a picture we should grant them the privilege but we

should cast aside our fear of operating upon an infant who has not had an X-Ray photograph. Sudden deaths in infants taking a general anaesthetic may now be classified as rarities.

Feeding

Much progress has been made in the artificial feeding of infants in the past twenty-five years and the marked decrease in the infant death rate must be attributed to the proper supervision of the feeding of infants by physicians, nurses, our health departments and the baby welfare clinics.

Only a few facts can be mentioned to demonstrate what changes have been wrought in the art of infant feeding. Twenty-five years ago it was considered far short of criminal to feed a baby anything but raw milk in the composition of our mixtures. Now it is properly admitted that in the first year all infants should be fed on boiled, steamed or pasteurized milk and if raw milk is used this milk should be of the certified brand.

It was formerly thought that milk should be the one article of diet in the first year. Now a well managed infant has added to his diet in the early months of life cereals, cooked vegetables, fruit juices, eggs, soups, bread or zwieback, potatoes, stewed fruits, and even the much maligned banana has found its place as a staple in the dietary of many a well regulated baby. Cod liver oil should be given to all babies who are born in the fall and early winter months, and orange or tomato juice should be prescribed for every artificially fed infant.

In the past lime water or sodium bicarbonate were added to all milk mixtures and by no means yet can alkalinity be pushed aside as a non-essential in the feeding of infants. However, it has been found that by acidifying our mixtures that the tax upon the hydrochloric acid secretion of the stomach is much less than with alkaline formulae. The formation of a fine curd by acidification renders the milk much more easily assimilated.

The interval between feedings has changed materially. The two and three hour schedules, except in the case of premature or extremely weak infants, has been supplanted by the four hour schedule and many young infants are fed but three meals a day and with success, too. The four hour schedule of feeding is even advocated by many men in the feeding of premature infants. Formerly the mother had but little time to do other than feed her baby and now she has an opportunity to do many other things because of the time allowed her by the pro-

longed interval between feedings. In addition the baby is much happier, has more hours of sleep and has much less indigestion.

In years past it was thought that the infant's stomach could not well tolerate any sugar but lactose which was the one sugar found in the composition of breast milk. Now we have a multitude of so called infants' foods containing maltose, cane sugar, lactose, or dextrose alone or in combination with wheat flour, and these sugars and starches do render the milk more easily digested and help to increase the growth of the baby. Almost every drug supply house has on the market one or more of such combinations, with their detail men extolling the praises of whichever one they happen to be representing. High carbohydrate feeding satisfies the hunger, increases the weight and increases the digestibility of the protein content of the formula.

The discovery of vitamins has improved our knowledge of infant nutrition. We now know that vitamins A and B are essential to the proper growth of the baby, that vitamin C is the potent factor in the prevention of scurvy, and Vitamin D is the main factor in the prevention of rickets. Other known vitamins do not have the importance in infancy which they do in the adult dietary, or possibly we do not yet appreciate their value.

Other factors which have made modern infant feeding more successful arise from our recognition of the value of regularity in feeding hours, regular periods of sleep, hours of being out of doors, less handling of the baby and a much more sensible mode of dressing the infant.

There are many interesting subjects relative to infants and children, which should be mentioned to demonstrate the progress which has been made in the past quarter of a century.

What has become of "cholera infantum," severe gastroenteritis and "summer complaint" of past years? We do still have some infectious diarrhea, but the frightful mortality from intestinal disease which many of us witnessed has passed into history. There are several factors which account for the enormous decrease in the deaths from this cause: good milk which has come only through a long fight; the work of our health departments in the distribution of much valuable literature concerning the care and feeding of babies and their providing nurses to follow out the work of baby welfare stations; the medical supervision of feeding cases and perhaps above all the dissipation of our phobias concerning the boiling or pasteurization of milk.

In 1910 there were, under two years of age, 258 deaths from diarrhea and enteritis in the City of Providence. In 1934 there were 12 deaths from this cause.

What has become of the many children we formerly saw suffering from tuberculous cervical adenitis, tuberculous peritonitis and tuberculous disease of bones and joints. Tuberculous meningitis, formerly quite common, has become classified among the rarities in childhood. The reason for this lies in the fight against bovine tuberculosis and safer milk resulting from that campaign. In 1910 there were 34 deaths in this city from tuberculous meningitis under five years of age. In 1934 there was one death from this same cause.

Great credit must be given to the workers of our antituberculosis league in their supervision of children suffering from mild pulmonary tuberculosis and tuberculous bronchial glands and above all the careful watching of tuberculous contacts. Dr. John Pinckney recently told me that the number of children coming to him for supervision had increased. Cannot we attribute this to the education which the public has received in this matter and to the appreciation on the part of parents of the value of regular supervision of these children rather than to an actual increase in the amount of pulmonary or bronchial gland tuberculosis among children? In 1910, there were, under five years of age, sixty-three deaths from all forms of tuberculosis. In 1934 there were but five deaths.

What of eczema, hay fever, asthma and allergic conditions? Whereas by no means can we cure them all, at least instead of groping blindly about to discover the irritating substance, we have been given valuable information by our skin tests. By no means does our discovery of an irritating substance end the problem but we are enabled to eliminate some of the exciting causes of allergy.

We do not know the underlying factor in the production of allergy. This will probably eventually come from the student of endocrine therapy and when certain gland substances can be injected directly into the blood stream we will probably have reached a solution of the problem. To state which of the glands of internal secretion will furnish the desired substance would mean but a guess. From the decidedly close relationships between the symptoms of allergy and those relative to the vasomotor system, adrenin, the active principal of the suprarenal gland, might seem to be one of the most potent factors in the future treatment of allergy.

There may also be a substance in the pituitary gland which will be of value. Time will tell.

In the genito-urinary system, some advances have been made by the use of the X-ray in proving that many cases of so called chronic pyelitis are due to a congenital obstruction in the ureter. Most of the children suffering from acute pyelitis acquire the disease from an acute throat infection. Such cases may clear rapidly, but in the event of chronicity, will usually respond to a ketogenic diet with the addition of the customary urinary antiseptics, unless there is a congenital obstruction of the ureter. There is really no such disease as pyelitis from the pathological viewpoint. There is in this disease a distinct infection of the kidney substance, miliary abscesses being the predominating feature.

Are rheumatic fever, chorea, and endocarditis decreasing in their incidence? I believe that they are, although we still see many children suffering from this group of diseases. I have always believed that the infecting agent in these diseases found its way into the body through lymphatic tissue. If tonsils have not been removed in children suffering from one of these three conditions or combination of them, the tonsils should be removed. If tonsils have been removed, we need not feel too disheartened, for the removal of the compensatory masses of lymphoid tissue which nature produces in the throat following tonsillectomy may be removed with often rapid subsidence of symptoms.

Many children have their tonsils removed early in life for cervical adenitis, recurrent otitis media or other causes and I believe that the improvement shown in the decreasing number of chronic heart conditions is due to our modern, improved methods of tonsillectomy; a poor tonsillectomy is valueless and might best be left undone, but an operation properly done is often of much benefit to the child in the prevention of the rheumatic syndrome.

There has been added in the past four years another branch of pediatrics, namely, that of child psychology. This has attained much popularity in the public mind, perhaps more than it deserves. This study has in fact a firm foundation and is already doing much for the problem child; it is helping the unusual child adjust itself more properly to the family group and to its environment. Above all this work is destined to be a great factor in the prevention of juvenile crimes; it reaches the child before it becomes a reformatory case and helps it to become of value in the community, rather than a social outcast.

In the diseases of the respiratory tract advances have not been so marked. Perhaps the most outstanding advance which has been made in the treatment of pneumonia has been given to us by Dr. Alexander Burgess, in the form of the oxygen box for the administration of oxygen.

Preventive Pediatrics

Probably no field of medicine has shown such glowing results as has the field of preventive pediatrics.

Diphtheria has been relegated almost into the category of rare diseases, although because of ignorance on the part of some and contrary religious faith on the part of others, we do still see an occasional child with this disease. Through the administration of toxin antitoxin, toxoid or the alum precipitate we have most adequate means of preventing diphtheria. Too much cannot be said of the work of health departments and private physicians in reducing the incidence of this disease almost to a minimum.

The physicians must take up the work with infants, while health departments continue the work with school children. One word of warning must be given. Many parents, owing to the fact that so many children are inoculated against diphtheria, are beginning to protest against the preventive work on the ground that as most children are protected theirs need not be. An increasing number of this class will gradually lower the bars to the entrance of this disease. There were 605 cases of diphtheria with 42 deaths in Providence in 1910. In 1933 there were 54 and in 1934 there was a total of 34. There has been no death of a Providence child since April 1932.

Measles, through the use of convalescent serum, undiluted human blood or human placental extract, has become so modified in its intensity that we need have little fear of the dreaded complications of measles. Much of this early work was done by Dr. Dennett L. Richardson at the Charles V. Chapin Hospital. When measles modifiers are used, the absence of otitis media and broncho-pneumonia are outstanding features. To expect the best result, measles modifiers must be injected during the incubation period of the disease.

Pertussis bids fair in a relatively short time to be placed on the list of passing diseases. In the past two years we have been given two methods of preventive inoculation. One, against whooping cough, the Sauer vaccine,³ depends for its efficacy upon the

large dose of the vaccine given, each child receiving eighty billion bacteria, and upon the use of twenty per cent fresh defibrinated human blood in the Bordet medium upon which the organism is grown.

The second substance recommended by Frawley⁴ is prepared by growing the Bordet bacillus on a similar medium to that used in the preparation of Sauer vaccine, but the growth is filtered and the filtrate containing the necessary antigen is injected. Neither of the above vaccines produces more than a local reaction of a mild nature, there being no danger of sensitization of the patient owing to the fact that human blood is used in the preparation of both vaccines.

Many children are rendered completely immune, particularly the younger ones, and in the few who have developed pertussis in spite of the use of the vaccine, the disease has been mild. A great advance has been made in the right direction and in a relatively short time the vaccines should be so perfected that we may have absolute confidence in their protective value.

Infantile Paralysis. This subject has been treated on a large scale in the literature of recent years. The general consensus of opinion is that the use of convalescent serum has not proved satisfactory. It was thought at first that convalescent serum in the preparalytic stage prevented the appearance of paralysis, but in answer to this argument there have been collected from the literature 531 untreated preparalytic cases of poliomyelitis of which number 380 or 71.5% never did show any paralysis.

There seems to be some future hope in the prevention of this dreaded disease. Now, Brodie,⁵ working in the Laboratories of the New York Department of Health, has produced a vaccine made by adding a weak solution of (about 0.2%) formaldehyde to a suspension of the injected cord of a monkey.

Kolmer,⁶ of Philadelphia, is now using a vaccine consisting of a 4% emulsion of poliomyelitic cord in a 1% solution of sodium ricinoleate.

Three doses are given one week apart, a total of 3-4 cc. being used to immunize a child. These vaccines contain active virus devitalized by sodium ricinoleate or formaldehyde.

The work of these men is of too recent a nature to give results yet obtained, but the value and importance of such advances cannot be overestimated.

What has been done in this city and state to further the progress of pediatrics?

In 1910 there was not a strictly pediatric service in any hospital in the state. There was at this time no service in charge of a medical man whose practice was limited to pediatrics alone; the pediatric wards were under the domain of the attending physician-on the regular medical service. Today there is a pediatric service in all the major hospitals, with a staff of men whose practice is devoted entirely or in its major part to pediatrics. The pediatric departments have become entirely separated from the medical services. This has resulted in more specialized medical and nursing care of infants or children requiring hospitalization.

Out-patient children's departments have grown to a very considerable extent. In Providence in 1910 there existed out-patient departments only at St. Joseph's and the Rhode Island Hospital. Out-patient clinics are now conducted at these two hospitals as well as at the Charles V. Chapin Hospital, the Federal Hill House and Lyra Brown Nickerson House.

From a humble beginning of one Baby Welfare Station, where a doctor and nurse were in attendance to supervise the feeding of normal infants there now exist clinics all over the state so widely distributed as to obviate the possibility of there being any mother who cannot be given adequate advice in the raising of her baby.

Mention must be made of the unique and most excellent unit which has been added to our pediatric armamentarium in the form of the Emma Pendleton Bradley Home. This hospital in the treatment of our mentally crippled and problem children is already filling a need which has been felt in many communities.

Our City Health Department added, approximately twenty-five years ago, another unit to our preventive system in the form of medical school inspection. This same health department and the state department of health has furnished valuable literature to assist in public health education, and has furnished feeding schedules and diets for children which have been of inestimable value in the general campaign for better health for our children.

What are the results of our efforts? In 1910 there were 145 infantile deaths per 1,000 births. In 1933 there were 52 and in 1934 the infant mortality was 49.89—below 50 at last.

What will be the future of pediatrics? It should be 75% preventive in its scope, including feeding of infants, general hygiene, public education, child

(Continued on page 89)

THE RHODE ISLAND MEDICAL JOURNAL

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R. I. Ophthalmological and Otolgical Society—2d Thursday—October, December, February, April and Annual at call of President. Dr. Robert C. O'Neil, President; Dr. N. A. Bolotow, Secretary.
The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Archibald C. Matteson, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

RHODE ISLAND PRACTITIONERS

Physicians are fortunate who practice in this state. While we have our problems, we do not have as many as some of our confreres in other states. New York City, for instance, has 13,500 physicians against 785 in Rhode Island. We have one physician to 880 inhabitants, while in Manhattan there is one to 280, and about 100 hospitals and 150 dispensaries which limit the practice of those physicians.
In some cities, city hospitals take in a large percentage of patients who are well able to pay

for medical services but do not intend to and camouflage their circumstances successfully. When X-ray examinations or physiotherapy are needed, these are obtained at small cost, and we may hear these people boast of their cleverness in managing to deceive investigators so thoroughly that they are taken care of indefinitely, without charge.
In some cities, the birth records at city halls are carefully watched and as soon as a baby is born the mother is advised to place the infant under the care of a baby clinic—thus eliminating the general practitioner or the pediatricist. In some cases this is excellent, but unfortunately there may be well-to-do mothers who do not feel that anything free

should be overlooked, often because they do not realize that such care should be reserved for the poor, and that to take advantage of it is detrimental to those for whom such help is intended, since it crowds the clinics and eventually lessens their efficiency in caring for those who cannot afford to pay.

We have less propaganda for state medicine than in many states. Some medical journals are advocating state medicine in every issue. We might be in favor of state medicine if the government would provide an income for physicians who serve the public without pay, in hospitals and dispensaries, or compensate those who do private practice, go to the homes of the destitute—then physicians can carry on the charity work required of them without seriously inconveniencing themselves, yet naturally they feel compelled to do so. It is a hopeless situation, for most medical men cannot afford to go any farther in that direction.

In Staten Island there is one physician to 1,200 residents, which is a fair average, which we strike throughout the country. Rhode Island has a small rural population in close proximity to cities or manufacturing centers. It is over-supplied with physicians (1 to 880).

New York City is now working on a plan for individual payment of three cents a day to insure a patient for three weeks free hospitalization a year. London has evolved a similar plan, to which 1,000,000 have subscribed. The Associated Hospital Service of New York is a none-profit corporation which is sponsored by the United Hospital Fund.

The next step, undoubtedly, will be to bestow free medical services on these subscribers. Such plans cover treatment, but ignore preventive medicine. No plan is complete which excludes such a factor.

Sooner or later Rhode Island will face such a problem; three cent hospitalization will become a reality in many places. We might be studying these issues before they come; it is a mistake not to foresee as much as we can. If we are to have health insurance it should be carefully regulated. The only reason health insurance has been left out of the President's program is possibly to give physicians a chance to formulate a plan.

ON GUARD!

The recent article in the Journal of the American Medical Association, by J. Edgar Hoover, Director

Federal Bureau of Investigation, U. S. Department of Justice, serves as a timely warning to all surgeons to be on the alert for criminals who are applying everywhere to doctors desiring plastic operative work for the removal of physical characteristics which would serve to facilitate criminal identification.

The case of the now famous John Dillinger, who was submitted to a considerable amount of plastic surgery to his face and his finger tips, is cited as an example of an unsuccessful attempt to so change his features and erase his finger prints as to constitute a strong point in defense against prosecution based on questionable identification.

It is pointed out that a considerable number of criminals will seek the aid of plastic surgeons in this matter, and "it has become increasingly incumbent on the plastic surgeon to scrutinize carefully the motives of criminals seeking to evade apprehension."

Of course, it goes without saying that no ethical physician would lend himself willingly to any such procedure, but it should be borne in mind that fugitives who are clever enough in their own work to be classified as public enemies are clever enough to manufacture plausible reasons for plastic alterations.

The warning, moreover, is neither far-fetched nor alarmist propaganda, and it behooves every surgeon to be on his guard against the criminal whose cunning and persistence might seriously compromise a too gullible doctor.

A CANCER CLUE

For the first time we see a spark of hope as to the cause of cancer. Dr. J. W. Cook of the Research Institute of the Cancer Hospital of London has discovered a new clue to the cause of cancer—a chemical cause, which the *Druggists' Circular*, Feb. 1935, reports Dr. Francis Carter Wood, eminent New York cancer specialist, as saying "as important to the field of cancer as the discovery of the tubercle bacillus by Dr. Robert Koch in 1882 was to tuberculosis."

Dr. Cook's working theory was that there might exist in the human body harmless substances necessary to life but which become perverted and changed into cancer-producing substances for some reason. He took a bile acid normally produced by the body and subjected it to the processes similar

to those which occur in the body, such as dehydration, oxidation, dehydrogenation and the removal of carbon dioxide.

"According to Dr. Cook, after the original bile acid, deoxycholic acid, was subjected to such processes, it was found to have changed into a hydrocarbon which was called methycholanthrene. When this was applied to laboratory mice, it is said to produce cancer. Dr. Cook reported the substances to be 5:6 dimethyl—1:2 benzanthraquinone."

According to *Druggists' Circular*, Dr. Wood said: "The discovery that a chemical substance found in the body can be changed into a cancer-producing substance gives us a key to the chemical nature of cancer. We have definite grounds for believing that some perversion of the normal processes in the body by making a slight change in the chemical structure of a health-giving sterol molecule may transform it into another substance that produces cancer. If we find out what causes this perversion, a way may be opened to find means for preventing it."

Druggists' Circular further reports recent correspondence with Dr. Wood: "We do not know as yet whether the transformation of deoxycholic acid into methylcholanthrene actually does occur in the body or not. All we know is that the chemical transformation was accomplished as stated by relatively simple processes which can occur in the body as they go on at temperatures not higher than 37° C. Hitherto all of the cancer-producing chemicals have been produced by distillation at high temperatures of a great variety of organic substances. This is the first instance in which a cancer-producing substance has been obtained by low temperature procedures."

We shall await further experiments with keen interest.

NOTE

COMING EVENTS

June	3.	Providence Medical Association	Providence
June	3-5.	Massachusetts Medical Society	Boston
June	5-6.	Rhode Island Medical Society	Providence
June	6-8.	American Surgical Association	Boston
June	10-14.	American Medical Association	
		Canadian Medical Association	Atlantic City
June	23-24.	Maine Medical Association	York Harbor

TWENTY-FIVE YEARS OF PEDIATRICS

(Continued from page 86)

psychology and preventive inoculations. Perhaps the other 25% of the work of the pediatricist will still consist of the care of the sick, for as long as the tubercle bacillus and the twenty odd strains of the pneumococcus live on, while the virus of our acute upper respiratory infections continues, and until someone teaches the streptococcus hemolyticus how to produce a permanent immunity, the physician will still have enough work to do, and when epidemics of influenza appear, he may have at times more than enough to keep him busy.

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A NEW TREATMENT FOR TENOSYNOVITIS (UNNA'S PASTE BOOT)

By DR. JONAH FIELDMAN

ROOM 210, 196 MAIN STREET, BROCKTON, MASS.

Tenosynovitis as it is commonly observed is due to an inflammatory condition of the tendon and its sheath. The symptoms and type of involvement (acute or chronic) depend mainly on the degree of inflammation and the etiological factor. The tendons most frequently involved are those of the wrist and those of the peroneal group in the lower extremity. The tendon crepitus frequently described "like the creaking of new leather" has been observed frequently by the physician.

The suggestion herein contained deals with the treatment and the results of several cases of the "common everyday type" of tenosynovitis, involving the peroneal group of tendons. Rest, counter-irritation, radiation and splinting are mentioned as already accepted forms of therapy.

Rest, counter-irritation and radiation all have their value; but, it has been observed that the period of relief by the use of such agents is, frequently,

slightly more lasting than the duration of their application. Splints on the lower extremity are obviously cumbersome and interfere with motion.

The use of an Unna's Boot, such as is employed for the treatment of varicose veins and varicose ulcers, has been observed to afford a definitely pronounced and more or less immediate relief from pain. This type of boot has the advantage over other forms of splinting in that it reduces the interference with motion to a minimum. It is of special value in those cases where the patient is unable for various reasons to lend the part to long and repeated treatments by the usual physical agents.

The formula and method of application of Unna's Paste can be found on page 127 of Christopher's "Minor Surgery." As used in this condition the boot should be applied in a "figure of eight" fashion around the ankle, extending to the mid-calf, leaving the phalanges and heel free. The boot may be left on for ten to fourteen days and new ones applied as necessary until relief is permanent.

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William P. Buffum, Monday evening, April 1, 1935, at 8:45 o'clock. The records of the last meeting were read and approved.

Dr. Goldberger read an obituary on Dr. Herbert S. Abel and the secretary read one on Dr. A. Arlington Fisher. It was voted to spread these on the records and send copies to the families.

Dr. E. A. McLaughlin, chairman of the Public Relations Committee, made a report of his interview with Mr. Stoddard regarding the health of school teachers. Mr. Stoddard thought the school department not responsible but promised co-operation. Dr. William C. McLaughlin discussed the report. Dr. Charles L. Farrell, chairman of the Education Committee, Rhode Island Medical Society, reported on the questionnaire they have sent out regarding post-graduate work.

The president appointed the following men from outlying districts to co-operate with the Unemployment Relief Committee: Earl A. Bowen, Cranston; John Conway, Warren; Antonio F. D'Angelo, Bristol; Francis J. Higgins, East Providence; John F. Lonergan, North Providence.

The first paper of the evening was on "Medical Aspects for Transfusions," by Francis H. Chafee. Transfusions are now reasonably safe with less than 15% of reactions. The indications for its use are not as yet clear cut. In acute blood loss it may be life saving. In medical shock it is valuable when saline and glucose are not sufficient. In infections its value is debatable. In the anemia of chronic disease small transfusions may be valuable. In hemophilia and purpura it may give temporary improvement allowing surgery. In discussing methods he stated that reactions are much more numerous with citrated blood and made a strong plea for whole blood. Dr. Burgess and Dr. W. S. Streker discussed the paper.

The second paper on "Some Surgical Aspects of Blood Transfusions" was read by Dr. Jesse P. Eddy, 3rd. He emphasized that transfusion was a surgical procedure. Whole blood gives less reactions than citrated blood but in small communities it is of value requiring less technique. Several transfusion methods of whole blood were referred to and the Lindeman multiple syringe method was advocated. After emphasizing the care in testing required he stressed the value of a controlled dependable source of donors as exemplified by the Donors Bureau of the Providence Medical Association. The two papers were discussed by Drs. Shaw, Bradley, Langdon, Kerney, Newsam, Eddy, Freedman and Chafee.

Dr. Samuel Morein reported a case of Syphilis of the Stomach.

The meeting adjourned at 10:42.

Attendance 100.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE,

Secretary

PROVIDENCE MEDICAL ASSOCIATION

AND

NEW ENGLAND PEDIATRIC SOCIETY

A combined meeting of the Providence Medical Association and the New England Pediatric Society was called to order by the President, Dr. William P. Buffum, Monday evening, May 6, 1935, at 7:50 o'clock. The records of the last meeting were read and approved.

Dr. Chafee reported for the Donors Bureau that a sum of money has been given and is now available for charity transfusions.

Dr. Elihu Saklad reported for the Unemployment Relief Committee that they wished a list of physicians ready to receive calls from people on the E.R.A. list.

The President announced the appointment of the following members of the Committee on Ethics and Department:

For 1 year—Dr. Charles F. Gormly, Chairman.

For 1 year—Dr. William P. Davis, Secretary.

For 2 years—Dr. Frank E. McEvoy.

For 2 years—Dr. Isaac Gerber.

For 3 years—Dr. Murray S. Danforth.

For 3 years—Dr. Lucius C. Kingman.

For 4 years—Dr. Halsey De Wolf.

For 4 years—Dr. Frank T. Fulton.

He also announced for the obituary committee on Dr. Clifford H. Griffin; Dr. Albert W. Rounds and Dr. William H. Magill. It was voted that the President appoint a committee for the annual golf tournament. The president then adjourned the business meeting of the Providence Medical Association and turned the rest of the meeting over to Dr. Paul W. Emerson, President of the N. E. Pediatric Society.

The first paper was by Dr. Dennett L. Richardson on "Immunization against Measles." Since its discovery in 1918 a multiplicity of methods have been used. For ten years at the Chapin Hospital they have been using serum from recent measles convalescents. The fatality rate from measles is very high in very young children and may rise as high as 25% in asylums. Convalescent serum apparently confers a temporary immunity and there is very little reaction from its use. He gave a short description of their technique and results, there being entire protection in a large proportion of cases and a mild type of disease in many others. Placental extract is now being tried and seems to give an active immunity, but often causes unpleasant reactions. The paper was discussed by Dr. Place.

The second paper, by Dr. Maurice Adelman, was on "Purpura as a Complication of Scarlet Fever." After a short discussion of Purpura in general and its manifestation in Scarlet Fever he reported a case beginning with pinpoint hemorrhages progressing until the whole body showed severe hemorrhages, the urine showed albumen and a severe anemia developed. After a course of over a fortnight it gradually recovered. The paper was discussed by Drs. Batey, Wesselhoef, Place and Adelman.

Dr. Murray S. Danforth gave a Review of Cases of Legg-Calve-Perthes Disease. Occurring in children from four to eight, it gives symptoms like tuberculosis of the hip and shows an absorption of the epiphysis resulting in a flattening of the head of the femur and an apparent fragmentation. His treatment prevents pressure of the head on the acetabulum by rest in bed to prevent weight bearing and later an apparatus to continue the non-weight bearing when they get up. A series of roentgenograms showed the progress resulting in good hips after several years of treatment.

The meeting adjourned at 9:20 P. M.

Attendance 140.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE,

Secretary.

GOLF

The Annual Golf Tournament of the Providence Medical Society will be held June 16th, 1935.

The committee consists of: Dr. Joseph P. Leone, chairman; Dr. Chas. O. Cooke, Dr. B. H. Buxton, Dr. N. A. Bolotow, and Dr. Richard McCourt.

Although sixty-eight physicians teed off last year a much larger number is expected in June.

The Charles F. Gormly Cup of the 1934 tournament was won after close competition by Dr. Frank Honan.

A keener and larger competition is looked forward to for this year's trophy. Other prizes will also be awarded.

FORE!

AMERICAN-CANADIAN MEDICAL GOLFERS PLAY JUNE 10th

International golf will be played at Atlantic City on June 10th when members of the American Medical Golfing Association and golf enthusiasts of the Canadian Medical Association join forces at Northfield Country Club.

The A. M. G. A.'s invitation to the Canadian Medical Association to hold a joint tournament this year has been accepted by Dr. T. C. Routley, General Secretary of the C. M. A., who replied: "I am sure our Canadian colleagues will appreciate highly the honour you have done them in asking them to be

(Continued on page XVII)

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

RENAL COMPLICATIONS OF HYPERPARATHYROIDISM. Albright et al, *Am. J. Med. Sc.*, 187: 49, 1934, give the renal complications of hyperthyroidism as follows: Type 1. Pyelonephritis secondary to formation of calcium phosphate stones in renal pelvis. Type 3. Acute parathyroid poisoning with anuria and death. Type 2. Condition midway between the two, which simulates both chronic glomerular and vascular nephritis. As regards prophylactic therapy they suggest that fluids should be forced; that an alkaline urine should be avoided; ammonium chlorid is contraindicated. (Blood chemistry and X-rays establish the diagnosis.—M. W. T.)

* * *

The proper diagnosis of anemia demands quite an extensive blood examination. It is not only required to do a volume and hemoglobin content, white and red count, differential, but we should estimate the mean corpuscular volume (M. C. V.), the mean corpuscular hemoglobin (M. C. H.), the mean corpuscular hemoglobin concentration (M. C. H. C.).

* * *

VACCINATIONS FOR POLIOMYELITIS. Reports from Kolmer seem to indicate that we may have widespread vaccination against poliomyelitis in the future.

* * *

The Hauptmann trial cost over \$600,000 and from the criminologist's standpoint little has been accomplished.

* * *

50 YEARS A SURGEON, by the eminent surgeon, Robert T. Morris, fascinates me. He gives us courage. Too much material for quick digestion, though. The book is full of interesting facts. The chapter on the 4th Era of Surgery should be read by every surgeon. I call him "In and out Morris" for he takes but a few moments to do his job. No unnecessary manipulations. His chapter on fees shows some peculiar experiences. The story of a full life—of interest to every physician.

* * *

One of the most inaccurate and expensive procedures is the promiscuous use of liver extract for everyone who believes he has anemia or when anemia has been diagnosed by inadequate and inaccurate methods. Liver will only help a macrocytic anemia. Iron, microcytic. First a diagnosis must be established.

Chronic Arthritis. Pemberton, *Am. Jour. Dig. Dis. and Nutrition*, 1: 438, 1934, states that the arthritis syndrome is characterized by an unbalance of at least three, if not four, of the major systems of the body and that prominent among these is the gastro-intestinal tract. He believes that the swelling of the soft tissues which accompanies chronic arthritis, is referable, in part at least, to a condition resembling a low-grade edema. This edema can be corrected by various means—diet, physical therapy, postural exercises. A part of the stiffness is due to the excess fluids confined within limiting membranes of various kinds. (Many deformities, called arthritis, show negative X-rays; this soft tissue edema is not arthritis and should be treated early.—M. W. T.)

* * *

Whole Citrated Blood Intramuscularly in Measles Epidemic. Robert M. Lord, *Jour. Pediatrics*, 3: 509, 1933, advocates the use of whole citrated blood to protect children from three to six years of age from the complications of measles. He does not use the whole blood until three or four days after the rash appears.

* * *

Postoperative States of Excitement. Muncie, *Arch. of Neurology and Psychiatry*, 32: 681, 1934, states that infection and constitutional predispositions of the patient are the classical factors in postoperative psychoses but that the psychogenic factors have been stressed. He pleads for a close scrutiny in all contacts with patients after operation. (Without doubt a great problem is that of visitors disturbing the postoperative patient. No one likely to cause mental unrest should be allowed to call. Alvarez warns us that untoward mental reaction may follow operation in the case of patients with a bad constitutional background. They often cause trouble, as Alvarez even mentions that several surgeons have been killed by unbalanced patients—"the relatives of the insane."—M. W. T.)

* * *

Constant Positive Pressure Nitrous Oxide Oxygen Anesthesia for Thoracic Surgery. Albert H. Miller, *Jour. of Thoracic Surgery*, 2: 296, 1933, believes that this anesthesia is advantageous because it is non-irritating to the respiratory mucous membrane and is readily subject to pressure control. Miller points out that this method is specially useful in operations for diaphragmatic hernia.



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Mr. William H. Tooher, who has been the manager of these departments, is no longer associated with this Company.

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Internist desires association with older physician, group or general practitioner; Providence or vicinity. Class A graduate; Massachusetts and Rhode Island license; Gentle; 4 years training. Address c/o R. I. Medical Journal, 106 Francis St., Providence, R. I.

Katharine Gibbs graduate with clinical experience desires secretarial work in doctor's office. Tel. Wi. 1576.

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AMERICAN-CANADIAN MEDICAL GOLFERS PLAY JUNE 10th

(Continued from page 91)

present at the Twenty-first Annual Tournament of the American Medical Golfing Association."

Two Additional Events

Two additional events will be added to the day's already generous program of nine events and seventy prizes:

1. The International Event, featuring the "President's Cup," a new trophy presented by Dr. Chas. Lukens of Toledo, and nine other American prizes for our Canadian friends to carry back home.

2. The Canadian Event, featuring the "Ontario Cup," or championship trophy, and the other prizes of the Canadian Medical Association.

Many Foursomes of Canadians and Americans

Many American golfers having medical friends in Canada are arranging matches for the international medical golf tournament of June 10th. It is expected that 200 players will tee off between 6:00 A. M. and 3:00 P. M. in this 36-hole and 18-hole competition. The Atlantic City Committee has arranged that free busses will leave from Haddon Hall, from the Shelburne Hotel, and from the Ambassador Hotel at 8:30 A. M., and will return from Northfield in the evening at 10:30 P. M. Dinner at 7:00 P. M., with Dr. Frank A. Kelly of Detroit as toastmaster, will be followed by distribution of trophies and prizes by Dr. Walt P. Conaway, Chairman of the Atlantic City Golf Committee.

For entry blanks, write Bill Burns, Executive Secretary, 4421 Woodward Avenue, Detroit.

BOOK REVIEWS

Human Anatomy, Double Dissection Method by Dudley J. Morton, Columbia University Press, is a work in two volumes for students of anatomy.

The books give in outline form the chief points of interest to be examined in dissection of the human body together with suggestions for notes and drawings. In other words the books endeavor not only to make dissection more profitable to the student but also to fix the information more firmly in his mind.

These books will be helpful both to teachers of anatomy and to students.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

NOTE

ACADEMY OF PHYSICAL MEDICINE

Annual Meeting, June 12 and 13, The Claridge Hotel, Atlantic City, New Jersey. For further information address Arthur H. Ring, M.D., Secretary-Treasurer, Arlington, Mass.

PROVIDENCE MEDICAL ASSOCIATION

Unemployment Relief Committee

The following regulation regarding payment for services under the F.E.R.A. Medical Relief Plan will go into effect June 1st.

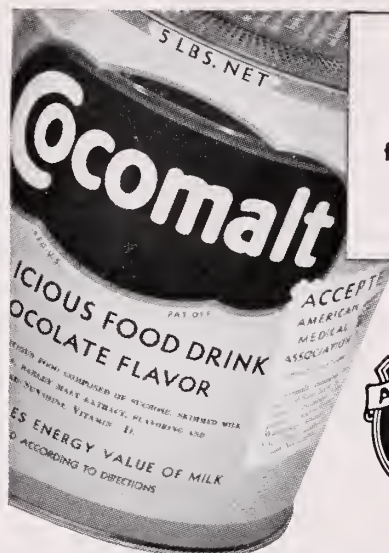
The fee schedule remains unchanged for services up to \$100 in one month. For bills in excess of \$100 the following reductions will apply to the excess.

1st hundred excess or fraction thereof	25%
2nd hundred excess or fraction thereof	33⅓%
3rd hundred excess or more or fraction thereof	50%
Obstetric cases are not included in the reductions.	

It is imperative that physicians treating patients under the Medical Relief Plan of the Department of Public Aid render their bills to that office before the fourth of the month following that in which the work was done.

UNEMPLOYMENT RELIEF COMMITTEE

Rocco Abbate, M.D. James W. Leech, M.D.
Bertram H. Buxton, M.D. Guy W. Wells, M.D.
William S. Streker, M.D., *Chairman*



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Dear Doctor:

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We invite and urge you to use this Service.

It is absolutely **free** to you.

The Co-operative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in "The Journal," and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages, but if they are not, we urge you to ask "The Journal" about them, or write direct to the Co-operative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want "The Journal" to serve you.

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Laryngoscope, 1935, XLV, 149-154*

SEE ALSO

Pharmacology of Inflammation: III. Influence of hygroscopic agents on irritation from cigarette smoke.

Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*



The results reported in these papers find a practical application in Philip Morris cigarettes, in which only diethylene glycol is used as the hygroscopic agent. To any Doctor who wishes to test them for himself, the Philip Morris Company will gladly mail a sufficient sample on request below. ★★

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THE RHODE ISLAND MEDICAL JOURNAL



Owned and Published by the Rhode Island Medical Society. Issued Monthly

VOLUME XVIII
No. 7

Whole No. 310

PROVIDENCE, R. I., JULY, 1935

PER YEAR \$2.00
SINGLE COPY 25 CENTS

Annual Number

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ORIGINAL ARTICLES

Address: Early Medical History in Rhode Island. Walter L. Munro, M.D.

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Contents continued on page IV advertising section.

ENTERED AS SECOND-CLASS MATTER AT THE POST OFFICE AT PROVIDENCE, R. I., UNDER ACT OF MARCH 3, 1879

Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

**If you have a large incidence of loose stools
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*When requesting samples of Dextri-Mallose please enclose professional card to cooperate in preventing their reaching unauthorized persons—
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The severe mental anxiety which generally precedes operative procedure often makes sleep difficult and deters the patient's recovery. In such cases physio- and psychotherapy are very often insufficient and a safe, effective sedative must be resorted to in order to induce sleep.

Ipral Sodium (sodium ethylisopropylbarbiturate) is a safe sedative and hypnotic which through selective action on the sleep center, reduces the patient's perception of internal and external stimuli, producing a sleep closely resembling the normal from which the patient awakens generally calm and refreshed. It is readily absorbed, rapidly eliminated and in the therapeutic dose, which is small, it is free from untoward organic effects.

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Tablets Ipral Amidopyrine (2 gr. Ipral, 2.33 gr. Amidopyrine) provide both an analgesic and a sedative effect.

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The local member of this organization is Fro-joy Ice Cream — long a favorite. Wherever Fro-joy Ice Cream is sold, the red-and-white "Sealtest" symbol is displayed — at once a reassurance and a buying guide for customers.



F I N E R F L A V O R

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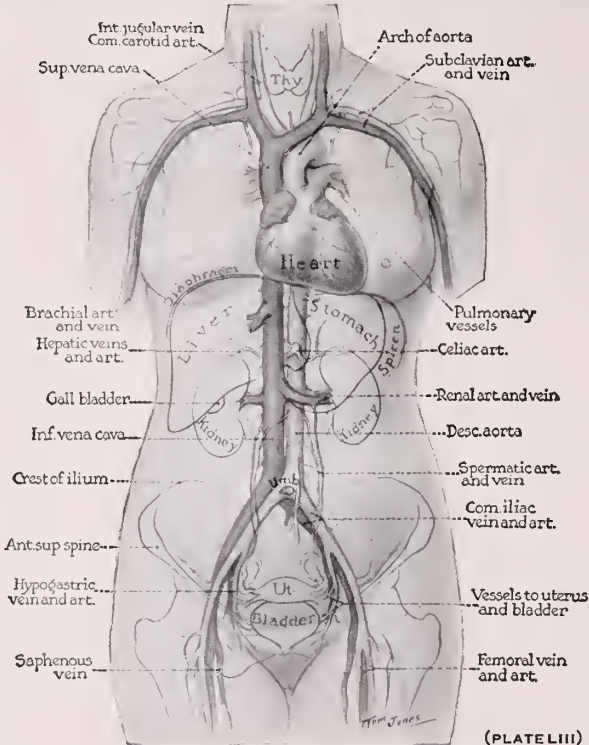
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FOR the seventh year Parke, Davis & Co. is continuing its series of messages to the public, published in the interest of the physician. These advertisements appear in the *Saturday Evening Post*, *Time*, *News-Week*, *Hygeia* and other leading magazines. Our purpose is to bring physician and patient closer together—to strengthen the public's confidence in the most honored of all professions. These messages are suggesting the earnest co-operation of the individual with the physician and are urging a reliance on the physician's knowledge and skill.

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The Tragedy of a Good Intention.
Things I wish my mother hadn't taught me.
Which is the more dangerous age?
This little girl has three parents.
You don't believe in doctors?
Maybe "So-o-o Big" is too big!
The most dangerous thing about appendicitis.
The man who sentenced himself on circumstantial evidence.
He and his father would have been great pals.
Here's something you don't see in the papers.
This is the lady who was afraid of hospitals.

Most of these you may remember. Yet you may desire to scan through them again and then place this portfolio in your reception room. We shall be glad to send you a copy on request.

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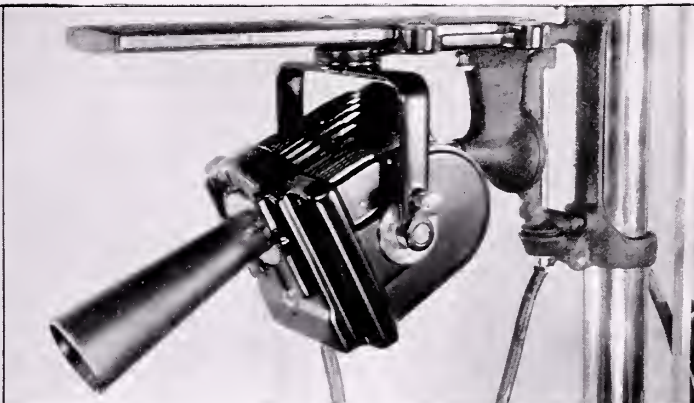
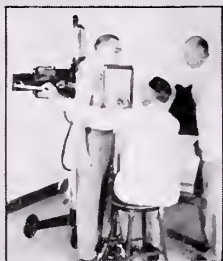


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VITAMIN STABILITY DURING CANNING

● For over twenty years, intensive studies have been made of the stabilities of the vitamins under various conditions and treatments. Data accumulated indicate that certain vitamins contained in foods may, under specific conditions, be sensitive to oxygen in the presence of heat, or to heat or oxygen alone (1).

Broad details concerning vitamin stabilities are now general knowledge. The basic principle of commercial canning, namely heat sterilization of foods in sealed containers, is also generally known. As a consequence, there has been a tendency in some quarters to regard canned foods as deficient in certain, if not all, vitamins originally present in the raw material because of the conditions to which they were subjected during the canning procedures. Such a concept is not consistent with the established facts.

In future issues it is our intention to review the vitamin values of specific canned foods, as well as other nutritional virtues which they may possess. At this time we should like briefly to survey the matter of the stability of the most widely distributed vitamins during the canning procedure:

In general, vitamin A is not affected by commercial canning. This also appears true of vitamin G, as judged by present bio-assay methods for this complex dietary factor.

The stability of vitamin B₁ is dependent not only upon the heat treatment accorded it, but also upon the natural acidity of the food in which it is contained. In the more acid foods there is practically no loss of the vitamin during canning; in the less acid foods, which require longer and higher sterilization times and temperatures, the degree of retention is not as high.

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A fuller discussion of vitamin stabilities during canning procedures is not possible here. For further reading a recent publication dealing more in detail with this important subject is recommended (2).

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(1) The Vitamins, Sherman and Smith, The Chemical Catalog Co., New York, 1931.
The Vitamins; Browning, Bailliere, Tindall and Cox, London, 1931.
Vitamins, A Survey of Present Knowledge, Medical Research Council, H. M. Stationery Office, London, 1932.

(2) Ind. Eng. Chem. 24, 650 (1932)

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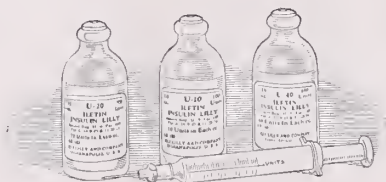
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ADDRESS

by

WALTER L. MUNRO, M.D.

EARLY MEDICAL HISTORY IN RHODE ISLAND AND THE RHODE ISLAND MEDICAL SOCIETY*

Just one hundred years ago Dr. Caleb Fiske presented to the Rhode Island Medical Society, and, through it, to the whole profession and to Society at large a fund for awarding annual premiums to the authors of essays which should promote medical progress and aid in the conquest of disease.

We cannot better mark the centenary than by a brief review of early medical history in Rhode Island and of the Rhode Island Medical Society.

* * *

The first English settlements upon the Atlantic coast of North America were made in the early 17th century: at Jamestown, Virginia, in 1607, and at Plymouth, Massachusetts, in 1620. The old country had but recently emerged from the twilight of the Dark Ages during which the torch of learning, all but extinguished in central and western Europe, had been kept alive and burning brightly in the countries about the eastern shores of the Mediterranean. The medical profession, made up mostly of the humble and ignorant barber-surgeons, ranked very low in the social scale in which the nobility and gentry in the first rank were followed in descending order by the Church, law and medicine, the medical man ranking little if at all above the tradesman. The comparatively few members of the Royal College of Physicians, often prosperous, somewhat pompous individuals, aped in dress and deportment their so-called betters. The barber-surgeon, whose most frequent employment

was blood-letting, displayed a bloodstained white rag outside his door as a business sign. Thus originated the barber-pole. The blue band may have been added as a bid for the patronage of the blue-blooded aristocracy.

Medical science did not exist, for "science is knowledge in which systems have no part," and systems ruled supreme in those days and woe betide the assemblage of facts or symptoms which could not be made to fit the preconceived theory.

In the early 1600's the humoral pathology was still in the ascendant and remained so for more than a century longer. Treatment was entirely empirical and without logic. Ignorance and credulity were unbounded. A single prescription will serve as an illustration. The following was selected from many as having a more definite bearing on one of our important present-day problems. It is from the receipt book of John Wadsworth of Duxbury, who writes:

"This Receipt cost me fifty pounds by count, and I pray yt you would not expose the same without good fee: this for a canser humor. Take 3 frogs and put ym into a deep airthen Basen and power upon them as much swete oyel as will cover them, put ym into a hot oven and let ym stand a quarter of an houre: then turn off the remaining oyel and dip tow in it and apply to the canser; and for a plaster you must take the yolkes of 2 eggs, Burnt Allow, 1 oz. Boal armonick, 1 oz., Bay salt one half oz. Bruse all to a fine powder and mix up with yr yolkes of eggs and apply in form of a plaster to the sore every 3d day. Give a portion of a spoon of salts to cool the hete of the Blood; this alwise will carry off a canser humor if timely applied: the person must make them constant Drink canser roots tea . . . We may att sartain times apply a tode cutt in two to the wound two or three times a week the nature of yr tode is such yt will draw out the sharp hot canserous and pysonous and if you proseded in this matter you may cure any canser."

That such abysmal ignorance and incredible credulity were the rule, not the exception, is shown by the medical literature of the times.

But the germs of progress were at work. After nearly twenty years of research and dissections

*Read before the Friday night Medical Club May 17th, 1935, and condensed to make the Annual Address before the Rhode Island Medical Society, June 6th, 1935.

William Harvey was on the eve of announcing his epochal discovery of the circulation of the blood thus giving an entirely new direction to physiology.

Thomas Sydenham, "the father of rational medicine," was inculcating in his disciples and followers a zeal for keen observation of facts and proper interpretation of symptoms. Medical schools were few and the number of those who could take advantage of them quite small.

Still the medical man was beginning to hold a higher place in public estimation and the various bodies of colonists were by the terms of their charters directed to provide themselves with their services styled in the quaint language of one of these documents "comforters for the sick." So Jamestown had its Wotton and Russell, and Plymouth its Deacon Samuel Fuller who seems to have been successful in his ministrations and stood high in the estimation of Gov. Endicott. He probably had no medical degree. Being a Deacon in those days was a full-time job and he was prouder of that title than that of Doctor. It is narrated that he was sent for from places as far distant as Charlestown and Salem.

The number of colonists was small and the supply of doctors, such as they were, was numerically better than in our country districts today. The supply was further augmented by the fact that most ministers and many high officials, notably Gov. John Winthrop, Jr., had a smattering of the medical lore of the day. Cotton Mather said that "there should be no distinction between theology and physic."

Until about midway of the 18th century obstetrics were entirely in the hands of the numerous midwives, many of whom seem to have been quite hardboiled so as to have exposed themselves in some instances to the suspicion of witchcraft. The first of the witches to be hanged in Salem was a doctress, Margaret Jones.

It was natural in communities where men of education were rare that members of the medical profession soon became men of large affairs, so that we find an undue preponderance of them in town and colonial governments, legislatures, the Colonial Congress and among the signers of the Declaration of Independence, as well as in the military.

The greater seaports, Boston, New York, Philadelphia and Charleston, were the medical centers of those days, and made most of the early medical history in this country. Newport was not far behind as a port of entry. For many years it was second only to Boston in point of size in New England.

The possessors of medical degrees were few and had, of course, been educated abroad. The medical student in this country apprenticed himself to some successful doctor for a period of three or four years during which he studied such books as his preceptor was fortunate enough to possess, accompanied him on his rounds, compounded his prescriptions and, we suspect, often curried the horses and milked the cows between times. Many of their preceptors were well versed in the classics so that the apprentice not infrequently acquired an excellent cultural background. At the end of his apprenticeship the preceptor gave him a "recommendation" or "certificate" with which as his stock in trade he started in practice.

The favored few whose finances permitted and for whom from forty to seventy days on a comparatively small sailing-vessel had no terrors, went abroad to complete their education and, if the funds held out, take a degree. Edinburgh was their Mecca in the early days where they were privileged to study under the first Munro, known in history as "Munro Primus" (he was followed by his son and grandson) who founded the Medical School of Edinburgh in 1719. John and William Hunter in London were sought out by many while others went over to Leyden where Boerhaave held forth, and not infrequently took their degrees there. The relations of these students with their foreign masters seem to have been much more intimate than obtain today. They were received at times into the homes of their preceptors and granted a friendship which was kept up by correspondence after returning home.

It would be profitable to follow the careers while abroad of many of those who became the leaders of the profession in America, but we must confine ourselves for the most part to the distinguished few from Rhode Island and Providence Plantations.

The late Dr. W. S. Sherman of Newport, by his patient researches and published articles, made this subject peculiarly his own. We have borrowed freely from Dr. Sherman. THE RHODE ISLAND MEDICAL JOURNAL for May 1931 published his paper entitled "Some Notes on Early Medicine and Surgery in Newport County, the Cradle of American Medicine."

There was no doctor among the followers of Roger Williams; indeed up to the beginning of the 18th century "there was no physician in the northern part of the state," but Newport, owing to its favorable location and mild climate, early attracted

a considerable number of colonists possessing means, education, and refinement. Dr. John Clarke, who had studied both theology and medicine at Leyden, was one of the first band of settlers in 1638 and the first doctor in the colony. He also occupied the pulpit of the Baptist Church which still bears his name. Later he returned to England where, with the help of Roger Williams, he succeeded after twelve years in securing in 1663 the charter under which we lived, as colony and federal state, until 1843 when it was succeeded by the charter which the present dominant party is endeavoring to scrap.

The earliest license granted in Rhode Island (in 1641) ordered that "Dr. Robert Jeffreys shall be authorized to exercise the function of Chirurgerie." This distinction between the physican and the surgeon is seen in similar licensures granted in Virginia and Connecticut at about the same date. The surgeon was distinctly the inferior of the physician.

The first medical degree conferred in any of the colonies was bestowed upon Captayne John Cranston in 1664 by the colonial legislature. The act reads:

"Whereas the Court hath taken notice of the great blessing of God on the good endeavors of Captayne John Cranston of Newport, both in phissicke and chirurgery, to the great comfort of such as have had occasion to improve his skill and practice etc. The Court doe therefore vnanimously enacte and declare that the said Captayne John Cranston is lycenced and commissioned to administer phissicke, and practice chirurgery throughout this whole Collony and is by this conrt styled and recorded Doctor of phissicke and chirurgery by the athority of this the Generall Assembly of this Collony."

To the objection raised by some that this was merely a license, Professor Waite, in a recent monograph, replies that as the legislature had an undoubted right to confer upon other bodies the power to grant degrees, it certainly could itself exercise that function. Capt. John Cranston was an outstanding example of the versatility of the abler men of the colonies, being at different periods Attorney General, Commissioner to the Convention with the adjoining colonies, Commander-in-Chief of the armed forces of the colony in King Philip's War, and finally Governor of the colony. It is not known whether he had enjoyed any formal medical training.

The first M.D. granted in America was conferred by Yale in 1723 (fully ninety years before they had a medical department) on Dr. Daniel Turner who was never in this country. Being, like other surgeons of his time, anxious to break away from the Company of Barber-Surgeons, so that he might join the Royal College of Physicians, he got himself expelled from the Barber-Surgeons and, through Mr. Dummer, agent in England for Connecticut Colony, sent a valuable consignment of medical books to Yale with the request that the college give him an M.D. He got the M.D. but it was not recognized by the Royal College of Physicians. He was never admitted to fellowship; in fact, in view of the circumstances under which it was granted, the M.D. was interpreted as meaning "multum donavit."

Among those arriving at Newport in the early part of the 18th century was Bishop Berkeley. Esteemed one of the most scholarly and highly educated men of the time, he, like Cotton Mather, believed that he had a cure of bodies as well as of souls. Ironically enough, in spite of his many perfections he is probably best remembered by us moderns for his tar-water specific. It is worth reporting to illustrate the credulity of the times. He writes:

"To render Tar Water as generally useful as possible, I would draw up some rules and remarks in a small compass.

"Norwegian tar being the most liquid, mixes best with water. Put a gallon of cold water to a quart of this tar, stir and work them very strongly together with a flat stick, for about four minutes. Let the vessel stand covered forty-eight hours that the tar may subside. Then pour off the clear water, and keep it close-covered, or, rather, bottled, and well-stopped, for use.

"I must own myself persuaded, from what I have already seen and tried, that tar water may be drank with great safety and success in the cure or relief of most if not all diseases; in ulcers, eruptions and all foul cases; scurvies of all kinds, disorders of the lungs, stomach and bowels; in nervous cases, in all inflammatory distempers; in decays and other maladies. Nor is it of use only in the cure of sickness; it is also useful to preserve health, and guard against infection and old age; as it gives lasting spirits, and invigorates the blood. I am even induced, by the nature and analogy of things, and its wonderful success in all kinds of fevers, to

think that tar water may be very useful in the plague both as a cure and as a preventive."

A truly wonderful universal specific!

The good Bishop played an active part in establishing in 1730 the Newport Philosophical Society which antedated the famous Philosophical Society of Philadelphia in which Benjamin Franklin played the leading role. Doctors John Brett and Thos. Moffat came to Newport from Europe and joined forces with Bishop Berkeley, Dr. Haliburton and others in promoting the Redwood Library which was opened in 1747. Of the library a diarist wrote: "It sowed the seeds of the sciences, and rendered the inhabitants of Newport a better read and inquisitive people than any other town in the British Colonies."

Dr. William Hunter, said to have been a cousin of the celebrated John and William Hunter, a graduate from Edinburgh and a very well educated practitioner, arrived at Newport in 1752 and met with instant success in both medicine and surgery. He was the "first male accoucher in the colony."

In 1754-56 Dr. Hunter delivered the *first course of medical lectures* given in the colonies. Philadelphia has long claimed this honor, basing its claim on the classes held by Dr. Shippen in 1762; but as long ago as 1828 Dr. James Thacher, in his "Memoirs of Eminent American Physicians," conceded priority to Dr. Hunter as did Drs. F. R. Packard and James G. Mumford, later historical writers; but still the controversy continued. The painstaking researches of Dr. Sherman brought to light Dr. Hunter's advertisements of his proposed course in the *Boston Evening Post* for January 20th and January 27th and February 3rd, 1755. They unearthed several tickets of admission, printed on the backs of playing cards and bearing numbers (61 and 101) which would indicate that the lectures were well attended; they revealed many references, both written and printed, to this course of instruction. His conclusions were, as has been stated, published in THE RHODE ISLAND MEDICAL JOURNAL for May 1931.

Recently (January 1935) there appeared in the *Annals of Surgery* a paper by Dr. E. B. Krumbhaar of Philadelphia who (apparently without knowing of Dr. Sherman's work, for he does not allude to him in his references) has patiently gone over the same grounds, with some help from Dr. Henry Barton Jacobs, and arrived at the same conclusions, which he states as follows:

"As regards their priority in the history of Anatomy in this country, there seems to be every reason to accept the belief that they were the first systematic advertised public lectures on the subject known to have been delivered in this country"; and again "he (Dr. Hunter) unquestionably deserves the fame for having been the first known in this country to have given a publicly announced, successful course of lectures on Anatomy and Surgery."

Dr. Krumbhaar's article is profusely illustrated, and well documented. The question would seem to be settled.

Speaking of Dr. Hunter and Dr. Haliburton, Dr. Benjamin Waterhouse wrote: "We doubt whether Boston, New York or Philadelphia ever had, at one and the same time, two practitioners of physic and surgery, better educated and more skilful than these two gentlemen."

The practice of inoculation for small-pox, age-old in the Orient, was introduced in England in 1721 by Lady Mary Wortley Montagu, who had seen it practiced among the Turks. By one of those coincidences which have frequently occurred in medicine, it came simultaneously to the notice of Cotton Mather, then an octogenarian, who grasped at it as an aid in the epidemic then raging in Boston. Bitterly opposed and maligned by all the medical men in Boston, he went out to Brookline and secured the aid of Dr. Zabdiel Boylston. We at this day can form no idea of the bitterness and savagery of the conflict which followed. The mob spirit was aroused. Dr. Boylston, hunted with halter and bombs, was obliged to go out under cover of night to see his patients; the houses of both men, Mather and Boylston, were bombed, but they could not be terrorized. When the epidemic subsided it was found that, notwithstanding the crude method practiced, only one in forty-eight of those inoculated had died, against more than one in seven of the uninoculated.

Dr. Jonathan Easton of Newport in 1772 was the first to inoculate in Rhode Island. Dr. Oliphant and Dr. Isaac Senter were both eminent practitioners in Newport, the latter especially acting as preceptor to many who afterward achieved note. It is evident that our southern capital could hold up its head with any of the medical centers in this country. It would be wrong to end this brief record of its standing in the 18th century without speaking of Benjamin Waterhouse, a native of the city who after studying diligently under Dr. Haliburton,

went abroad and secured his M.D. at Leyden in 1780. He became a member of the Board of Fellows of Brown University from 1782 to 1795 and Professor of Natural History in that college from 1784 to 1791. He later removed to Cambridge about 1795 and again went abroad for further study in England and Holland. His mother was a cousin of the great Dr. Fothergill whom, in his pride of relationship, he always called Uncle John. "Uncle John" was at that time the most sought after medical teacher in England just as Sir Astley Cooper was the lodestone for surgical students, while in Edinburgh Browne and Cullen had their followers in medicine and Munro Secundus, Abernethy and John Bell in surgery.

The mention of Fothergill recalls the advice he gave to Samuel Bard, who later became the brilliant New York surgeon and prime mover in founding King's College Medical School, which, after several changes of name, in a stormy and broken early career became finally the Columbia Medical School. To attain success he said, "You must do as I have done: I crept over the backs of the poor into the pockets of the rich."

In 1800 Jenner was just completing his experimentation with cow-pox virus. Dr. Waterhouse secured some of his vaccine and, returning home in 1800, tried it first on his own five-year-old son, following it up a few weeks later by inoculating the boy for small pox, thus completing a most successful demonstration *before* Jenner had published his discovery to the public. Vaccination was received by the people calmly and peacefully as compared with the reception accorded inoculation. Dr. Waterhouse was appointed a Professor at the Harvard Medical School, a position which he held from its founding in 1798 until 1812.

Providence at this period was but a small country town, lacking in everything which makes for refinement and culture. It had in 1748 but 3,452 inhabitants, but it did play its small role in the cause of medical education.

Dr. David Vanderlight, Physician and Chemist, a man of good family at Steenwyck, a town on the Zuyder Zee in Holland, holding a degree from the University of Leyden, came to Providence about 1750, married Mary, sister of the four powerful Brown brothers (John and Josey, Nick and Mosey) and went to housekeeping in a house on South Main Street, built in 1745 and only recently torn down to make way for the new Court House. All of you

who have sporting blood in your veins will remember the house as Carl Young's Hotel.

Dr. Vanderlight "was the principal druggist of the town," and "the first to give practical instruction in anatomy in Providence." "In connection with his brothers-in-law he engaged in the manufacture of candles, having brought with him from Europe a knowledge of the Dutch process of separating spermaceti from its oil." He died Feb. 14, 1755, just five days after the death of his ten months old infant son and only child.

So much has been gleaned from the pages of the "Chad Brown Memorial" and other sources. Diligent search has thus far added little to these details. Vanderlight left a surprisingly large personal estate (he owned no realty) for an apothecary in a little country town. His inventory, on file in the Probate Court records, totalled £4375 — 14s — 4d (about \$22,000), a far larger capital than that of an apothecary today. Going through this inventory, which covers six and one-half pages in the record-book, only one item was found which had a bearing and that was "1 Case for an Anatomy, with bones."

Rather a slender thread on which to hang a claim to priority in medical education you will say; so it is, but it is all we have, so let us make the most of it. As to the year when this "practical instruction in Anatomy" was given we can only say that it was prior to 1755, since in his will, dated June 17th, 1754, Vanderlight describes himself as a very sick man with no hope of recovery. It is certain that no course of lectures was advertised nor publicly announced. The instruction is said to have been given at the house on South Main Street.

The lectures of Hunter at Newport in 1754-5-6 and those of Shippen at Philadelphia about eight years later were plain indices of the growing need for better medical education. With prosperity and increasing wealth in the country the number of those going abroad to the schools of London, Edinburgh and Leyden was becoming larger year by year and of these fortunates more were staying long enough to obtain their degrees; and it was these very men who, on returning, realized most strongly the need for better facilities here at home and went to work to supply them. Philadelphia took the lead under the impetus given the new movement by the enthusiasm of Dr. Thomas Bond tempered by the political sagacity and hard common sense of Benjamin Franklin. In Philadelphia, the hospital preceded the medical school. Looking back

from the vantage-point of more than a century and a half it seems strange to us moderns that in most instances the school came first and the hospital afterward or not at all.

The course of education to be pursued called for three years' work under a preceptor, as before, supplemented by two courses of fourteen weeks each, after which, on passing an examination, the degree of M.B. was conferred and the recipient was entitled to practice at once, but was expected to return after three years to pass another examination and read and defend a thesis preparatory to receiving his M.D. In practical working it was found that for many of the students the M.B. satisfied all their needs and aspirations and they never came back for the higher honor. The M.B. was abandoned after a trial of twenty-five or thirty years. Though the school at Philadelphia was established in 1765, and that at King's College, New York, in 1768, the latter was the first in America, by a few months, to grant an M.D. in course. This was due to the fact that King's College required attendance on only one course of lectures and gave the M.D. after an interval of only one year instead of three.

While the War of the Revolution checked for a time the progress of medical education in this country, there can be no doubt that in the end it stimulated it. Brought in contact with one another, and, still more, with the more highly-trained surgeons of our French allies, American doctors from all the scattered outposts of the Colonies saw their deficiencies and a new ideal of, and desire for better educational facilities came into being.

Harvard was the first to respond by establishing a school in Cambridge in 1782. The first building was located in "the Yard," far removed from any hospital as well as the homes of the students. For the professors, busy practitioners, the ride back and forth from Boston each day was long and hard. Efforts to bring about its removal to Boston were blocked for many years by our old friend, Dr. Waterhouse, who lived in Cambridge and had no wish to move. The transfer was finally made in 1810. At the same time Drs. John C. Warren and James Jackson, who for many years controlled the destiny of the medical school, began the agitation which resulted in the opening of the Massachusetts General Hospital in 1821.

Nathan Smith, one of the greatest medical teachers and organizers America has produced, was born just across the Seekonk in Rehoboth (now East

Providence). In his childhood the family removed to Vermont, then as wild as any of our frontiers. Mere chance turned the thoughts of the uncouth young backwoodsman toward medicine. By dint of hard work he acquired sufficient education to be accepted as apprentice by a wise and skilful country doctor who after three years gave him his "certificate" with which he began his practice. Feeling keenly his need of further training he went to the newly established school at Cambridge for one course, took his M. B., and returned to his practice at Cornish, N. H. Desirous of providing educational opportunities nearer at hand and more economically come-by, he formed, with President Wheelock, plans for a medical school at Dartmouth and then went abroad to Glasgow, Edinburgh and London to prepare himself to act as instructor.

The first course at Hanover was given in 1798 and Dr. Smith was given his M.D. at the end of it. For twelve years he carried single-handed all of the courses, anatomy, surgery, chemistry, botany, and all the other branches. As Oliver Wendell Holmes, who twenty years later filled the chair of Anatomy at Hanover, said: "Nathan Smith filled no chair at Dartmouth; he occupied a whole settee." Lectures were generally given in the afternoon and were often three or four hours long. The upper classmen and faculty were invited to attend. That his discourse was inspiring is proved by the following well-authenticated incident. President Wheelock attended his lecture one afternoon and left just in time to conduct evening prayers, where he prayed: "O Lord, we thank Thee for the oxygen gas; we thank Thee for the hydrogen gas and for all the other gases. Also, O Lord, we thank Thee for the cerebrum, the cerebellum and the medulla oblongata."

For twelve years Nathan Smith carried on alone without an assistant. In 1813 he was called to New Haven to do for Yale what he had done for Dartmouth and there he remained until his death in 1829 with occasional long jaunts to lecture elsewhere, only taking time off for two years in 1821 to launch his third medical school, that of Bowdoin at Brunswick, Maine. Truly a remarkable man and a wonderful career. One can but regret that he was not born on this side of the Seekonk, so that Rhode Island could claim him.

As we have seen, Providence had in 1700 no doctor. The population was about 1,400. Dr. Richard Bowen, already of the third generation of doctors in his family, had settled in Seekonk (now

East Providence), only two miles away, shortly before 1700 and looked after the medical needs of both communities. His sons, Thomas and Jabez, were both educated as physicians; "Jabez settled in Providence on the home-lot of Roger Williams" not far from where St. John's Church now stands, while Thomas joined his father in Seekonk. Both of them had sons and grandsons who were doctors and had the best educations obtainable at that time. The name Brown became one to conjure with in matters medical for more than a century. The historian who hasn't a Bowen family tree to guide him becomes dizzy trying to follow the relationships.

In 1748 Providence had 3,452 inhabitants, in 1800—7,614, and the leaven of medical progress was working under the care of the Bowens and Drs. Drowne, Throop and Wheaton just as it had under Bond, Morgan and Shippen in Philadelphia, Bard and Jones in New York, and Warren and Jackson in Boston. The desire for better education and the necessity for organization to protect themselves against the quacks and charlatans, who were omnipresent in America, went hand in hand.

Rhode Island College was founded at Warren in 1764. Six years later it removed to Providence, the Brown brothers, John, Joseph, Nicholas and Moses, contributing to and personally supervising the erection of the "College Edifice," now known as University Hall, and the President's house which stood upon the Front Campus. During the building much rum was consumed as shown by the old records. In 1804 Nicholas Brown, Jr., whose father had died in 1798, gave the college \$5,000, and Rhode Island College became Brown University. It had by charter the power to grant degrees in Theology, Law and Medicine. Its first exercise of this function was in conferring an M.D. on Solomon Drowne, who already had an M.B. from the University of Pennsylvania and had spent four years in study abroad.

The leaven was working and in 1811 a School of Medicine was opened. It had no endowment, no provision, save fees, for payment of professors, no library, no laboratories, no clinics. Even at that it was better off than Dartmouth for it had three professors, each with a chair of his own. Strangely enough, as it seems to us, there was at the outset no chair of Theory and Practice of Medicine. The three original members of the faculty were Solomon Drowne, *Materia Medica* and Botany; William Ingalls, Anatomy and Surgery; and William Corlis

Bowen, "Chymistry." Dr. Ingalls was from Boston, a fine surgeon and one of the earliest and most vigorous opponents of blood-letting. Dr. Bowen, a brilliant young man who, after completing his academic course in this country, went abroad, took his M.D. at Edinburgh and then spent some time in France and in England, where he was an intimate of Sir Astley Cooper, died in 1815 from lung trouble brought on by inhaling noxious gases (probably chlorine) while experimenting with bleaching compounds for the benefit of our infant textile industry.

He was succeeded in 1817 by Professor John DeWolf of Bristol, great-grandfather of Dr. Halsey DeWolf. Dr. DeWolf was a thorough chemist and a brilliant and eloquent lecturer who served on the faculties of three other schools beside Brown and was in demand for popular lyceum courses. He was the recipient of an honorary M.D.

Dr. Levi Wheaton, a Brown graduate and pupil of Dr. William Bowen, took the chair of Theory and Practice and Obstetrics in 1815. He was a very able, highly respected practitioner through an exceptionally long life. He was a firm believer in bleeding on all occasions and was wont to say that "only on two or three occasions had he had reason to regret having bled a patient but innumerable times that he had not done so."

Dr. Usher Parsons became Professor of Surgery in 1822. He had been as a very young man with Oliver Hazard Perry at the Battle of Lake Erie, where, owing to the sickness of the two senior surgeons, he had all the surgery to do and did it remarkably well. His record book, written in his own beautifully clear script, is in the record-room at the Rhode Island Hospital and is well worth inspection. One will find "laudable pus" on almost every page. "He received the degree of M.D. at Harvard in 1818, walked the hospitals of Paris and London, and in 1821 became Professor of Anatomy and Surgery at Dartmouth, whence he removed to Brown the next year as adjunct professor of those subjects, becoming full professor in 1823." "If we may accept the testimony of two surviving pupils of the school," modestly writes his son, Professor Charles W. Parsons, "the opening of courses by Dr. Parsons gave new life to the institution. He made arrangements, through channels over which a veil of secrecy had to be thrown, for a supply of anatomical material." The courses were conducted in the "medical building," afterward

occupied by the University Grammar School (Lyon's School) where the administration building now stands. A trap in the floor of the attic allowed the "anatomical material" to be lowered into the lecture-room below.

Without going into details, the school grew steadily. It must have been almost a labor of love for the faculty who, in the early years, were entirely dependent for their compensation on what they could collect from their impecunious and often unwilling students. The requirements were three years under a preceptor, two full courses of lectures of fourteen weeks each with an examination and the presentation of a thesis at the end. The degree given was M.D., the M.B. having by this time been abandoned.

There were two graduates in course in 1814. After that, with the exception of 1815, the number increased annually until in 1825 there were thirteen graduates. The number of students in attendance in the middle twenties was about forty. The Medical School was prospering and seemed destined to a long life; *and then it died.*

It was not a natural death. The school was deliberately and ruthlessly smothered for the sake of a principle which has long since been discarded.

In February 1827 Francis Wayland became President of Brown University. He was a young man of 31. Before he took up religious work, he had himself studied medicine and qualified for practice. Hence he might have been expected to take an interest in the school; but no! not if it ran counter to one of his pet ideas. Dr. Wayland believed firmly in discipline as the basis of all education, and that it could be maintained only by a constant supervision over the students not only in the classrooms but throughout the day. Hence every member of the faculty must occupy a room in one or other of the dormitories and walk in upon the students in his division at odd times at least twice a day. Now the medical faculty, with one exception, were married men with families, beyond the prime of life, and had their professional business to attend. The President could have contrived no surer way of stifling the school. The last degrees were granted in 1827.

Let us study the school's record in the light of the later careers of its graduates. There were conferred between 1812 and 1827, eighty-six degrees in course, twenty-six honorary and six "ad eundem." Out of this number three became nationally known and honored. They were:

First, Jerome Van Crowningshield Smith, M.D. Brown 1818, who, after holding the chair of Anatomy and Surgery at Berkshire Medical Institution (where he was given an "ad eundem" M.D. in 1825), and filling a similar position at New York Medical College, finally settled in Boston where he was Port Physician from 1826 to 1849, edited the *Boston Medical and Surgical Journal* from 1828 to 1856, and was elected Mayor in 1854 and 1855. He also wrote and published extensively in non-medical fields.

Second, Alden March, M.D. 1820, who located in Albany, was Professor of Anatomy and Surgery in Castleton Medical College from 1825 to 1831 and founded in 1827 the Albany Medical Seminary, which later became the Albany Medical College, in which he held the chair of Surgery for many years. He helped found the American Medical Association, of which he became president in 1857, and was one of the best known leaders in medical progress in America.

Third, Elisha Bartlett, M.D. 1826, who, after a year in the hospitals and schools of Paris, settled in Lowell, became its first mayor (1836) and represented it in the General Court.

His career as a teacher began as Professor of Pathological Anatomy at Berkshire in 1832. From that on he was called successively to the medical schools of Dartmouth, University of Vermont at Woodstock, University of Maryland, Transylvania (then one of the largest and most prosperous schools in the country), and Louisville in Kentucky, and, finally, in 1852, to the College of Physicians and Surgeons in New York as Professor of Materia Medica and Medical Jurisprudence. This was his last appointment. He died three years later at his native place, Smithfield, R. I., only fifty-one years old, presumably from lead poisoning.

Besides his teaching career during which he had been connected with seven colleges in twenty years, he was eminent as an author, both medical and non-medical. Probably his most valuable contribution was his "History, Diagnosis and Treatment of the Fevers of the United States" which established for the first time the distinction between Typhus and Typhoid.

Besides these men of national fame, Brown University Medical School graduated several men, headed by Lewis Leprilete Miller, who became acknowledged leaders of the profession in Rhode Island, and others, doubtless as eminent in their

own spheres, who were scattered widely throughout the country.

Surely a young and growing plant which had already produced such fruits as these and was capable of producing more and more, deserved a better end. Its arbitrary and ruthless destruction, because of Dr. Wayland's pet idea, aroused a storm of comment and bitter criticism but the thing was done and beyond repair. Proponents of "new deals" are seldom open to conviction.

Side by side with the idea of a medical school and largely in the same brains there had been germinating plans for a medical society. These matured in 1812 just one year later than the medical school. Forty-nine doctors from all sections of the state but mostly from Newport (7) and Providence (14) signed the original act of incorporation. Of these certainly not more than nine, three of whom were Bowens, probably not as many as that, had their M.D.s; but the majority of them were men of sterling ability and wide experience. A considerable number of them later received honorary degrees from Brown University and elsewhere.

In every medical center there have been and are numerous hereditary medical families one or more of which in almost every generation follow the calling of their forbears. The Bowen family was the outstanding example in the early years of the last century. Beginning with Richard in Seekonk (now East Providence) in the 17th century, there had been an unbroken succession with two and sometimes three medical men in each generation. Many of the more recent Bowens had attended medical schools. They were noted as preceptors and had many students. Ephraim and his sons, William and Pardon, were especially sought after. Both Dr. Wheaton and Dr. Caleb Fiske were pupils of Dr. William Bowen.

Another almost equally old and equally numerous family of physicians is that of the Turners of Newport and East Greenwich which, after the lapse of one generation following the death of Dr. Henry E. Turner, is now active again in the person of Dr. J. Lincoln Turner of Pawtucket.

Dr. Amos Throop was the first President of the Rhode Island Medical Society and died in office. He left no descendants but has numerous followers to this day. He merits a brief notice for their sake. He was a prominent physician, member of the General Assembly for Providence, and President of the Exchange Bank from its founding to the

day of his death. He was, says Dr. Usher Parsons, "tall and of an erect, combined with a commanding deportment; and displayed the characteristics of 'a gentleman of the old school.' In accordance with the fashion of the day, he wore a powdered wig with several stiff tiers of curls, imported direct from London. It is related that the wigbox was appropriated and used as a chopping tray for force-meat balls by the French cook who served several officers of the French army, then quartered in Dr. Throop's house."

"During some period of the war, Dr. Throop volunteered to serve in a military company. There he was selected to serve in the capacity of fugleman. He humorously described the shock which his military pride received at a review, when, in an attempt to shoulder his musket in an exemplary style, it fell to the ground simultaneously with his cocked hat and wig. He affirmed that he was ever afterward content to confine his ambition to serving as a son of Esculapius, instead of a son of Mars, and to display his skill in the use of blue pills instead of leaden ones." So much for Amos Throop.

At the outset it was arranged that there were to be annual meetings, held in Providence and Newport in alternate years. Applicants for membership were to be subjected to examination after presenting their credentials. It is impossible to enter into details of the earlier years, since prior to 1850 the proceedings were not published. We can get a glimpse of the prolonged controversy between the advocates and the opponents of blood-letting. To bleed or not to bleed, that was the question. To the old guard there was no other logical treatment of pneumonia than blood-letting on the first day ("the larger the orifice the better") and possibly the second, followed by tartar-emetic and purges, with no nourishment nor stimulants whatever. It is astonishing how large a number survived the ordeal. In any emergency the first thing to do was to open a vein. The public believed in it and failure to do so was sure to be ascribed as a reason in case of an adverse result. One doctor proudly reported a case of Haemoptysis in which he had resorted to "blood-letting" more than one hundred times in one year with relief in each instance and an amelioration in the course of the disease. Another reported a shoulder dislocation in a large and powerful man which had been mishandled by a "natural bone-setter" until, at the end of four or five days, it was greatly swollen and exquisitely tender. The patient was stood up in the middle of the room, a vein

opened and allowed to flow until the man slumped to the floor unconscious, when the dislocation was reduced with the greatest of ease. This was before the era of anesthetics.

The conflict was long and bitterly fought, but science was advancing and could not be denied. As late as 1888 we find good old Dr. Eldredge of East Greenwich, in his "Reminiscences of Fifty Years in the Rhode Island Medical Society," exhibiting a decided nostalgia for blood-letting and tartar-emetic and foreseeing that if for any reason our "antifebrin and antipyrine" failed us, we would be obliged to revert to the old practice.

The papers read were not too short. After each it was moved and seconded that "a vote of thanks be given to Dr. Jones for his valuable paper and that a copy be requested for publication." It took the Society about sixty years to outgrow this fragment of time-consuming ritual. Matters of business could be and were introduced from the floor by individual members at their own sweet wills. The meetings were held at various places but especially in the Colony House at Newport and the old State House in Providence. There was, of course, a dinner or at least a luncheon. Going over the old records, one is led to infer that the privilege of providing (and paying for) the banquet was one of the perquisites of the President in office. Dr. Eldredge hints delicately that it seemed to him at times that the attendance at the dinner was even larger than at the meeting.

In 1835, just one hundred years ago, the Society received from Dr. Caleb Fiske, who had been its fourth President, its most notable benefaction. The story of Dr. Fiske the man, and his wise and farsighted benevolence, has been told, and told well, by Dr. Louisa Paine Tingley, his great-great-granddaughter, in THE RHODE ISLAND MEDICAL JOURNAL for October 1932. He was born, and died, about eighty-two years later, in the section of Scituate which later became a part of Cranston and was called Fiskeville in his honor. Educated in medicine under Dr. William Bowen, he, in turn, acted as preceptor to many who afterward became noted physicians. His was a busy life, in the course of which he was not only a successful country doctor, but also hospital surgeon, Judge of the Common Pleas Court, and banker and financier. He was given an honorary M.D. by Brown University in 1821.

The deed of gift of the fund is contained in his will, written in his own handwriting, which, in its

meticulous care to provide for every contingency, shows how dear this project was to the doctor's heart and how much thought he had bestowed upon it. After providing that nine-twelfths of the income of the fund shall be devoted to a prize to be given annually to the best essay upon a subject or subjects to be assigned by the trustees, and that two-twelfths be set aside as remuneration for the trustees, he cannily adds: "And it is also believed that said trustees . . . will frequently, if not *uniformly*, render their service *gratuitously*, whereby a further addition may be made to said fund." The acceptance of this gentle hint by the various boards through the last century has swelled the fund by some thousands of dollars. Starting at \$2,000 in 1835 it has increased some six or seven fold in a century.

The trustees have served diligently and conscientiously in carrying out the wishes of the donor. The late Dr. S. Augustus Arnold served as secretary of the fund for twenty-six years.

Beginning with prizes of Forty Dollars, the premiums have increased, as the income of the fund and other circumstances dictated, until they reached Two Hundred Dollars. In one or two years no essays were received; in several years none of those offered was found "worthy of a premium." They have come from authors, not only in Rhode Island, Massachusetts and Connecticut, but also California, Oklahoma, Ohio, Indiana, North Carolina, Virginia, Washington, D. C., Maryland, Pennsylvania, New York, Maine and from London, England. The number awarded premiums up to 1935 was sixty-eight, of whom thirty-one were from Rhode Island and thirty-seven from all other points included; quite a fair showing for our state against the field, but it would not be quite so creditable if we eliminated Dr. Charles V. Chapin whose keen mind and facile pen have led him to victory no less than eight times. There have been other repeaters, but he has been by far the worst offender. The whole number of authors of these sixty-eight prize essays was, therefore, only forty-eight.

Dr. Fiske, always a studious observer of medical progress, builded himself a monument which will keep his name and fame alive for many years to come.

During this period medical science was advancing with constantly accelerated pace. The stethoscope and clinical thermometer had come into use. Then in 1846 came the greatest discovery of all times, that of anaesthesia. The subject is too

familiar to you to require elucidation. Suffice it to say, quite tritely, that it altered over night the whole aspect of surgery and obstetrics.

The population of the state, and especially of Providence, was growing apace. While the city in 1800 had only 7,614 souls, it had in 1850, 41,513. This rapid growth created many problems of sanitation and hygiene which the medical society took a leading part in trying to solve. It must be remembered that the city had as yet no general hospital. Dexter Asylum with its infirmary had been opened about 1835 and Butler Hospital began its great work in 1844. The Marine Hospital, limited to sailors, and really only a lazarette, carried on in a small way on the same spot where the Rhode Island Hospital now stands. There was no city water, no sewers. The citizens were supposed to be protected by the old "night watch." The fire department consisted of a few volunteer companies with their hand-tubs. Every free-holder was required to have his row of leather fire-buckets hanging in his front hall where they could be grasped at the first dread call of "FIRE!"

There had been no proper registration of marriages, births and deaths. They had been entered in the family Bible or not at all. The Society took that matter in hand and had a law passed in 1850 requiring the town officers in every town to report regularly.

It was said that Dr. Joseph Mauran (he who built the Mauran Block on Benefit Street which was demolished to make room for the new Court House), who was long one of the most tireless and energetic members of our Society, while on a visit to the "home of his ancestors" in Italy, saw there the orderly records for hundreds of years and came home determined to start something of the sort here, and, according to the word of his contemporaries, whatever he set out to do, he accomplished. He also labored strenuously in promoting the building of the Rhode Island Hospital, still a score of years in the future. It would be interesting, if time and space permitted, to give sketches of other strong men of that period—the venerable Levi Wheaton; Usher Parsons, the surgical hero of the battle of Lake Erie; Isaac Ray, first superintendent of Butler Hospital, who gave it an initial impetus it has never lost, and many others.

It has been mentioned that at the outset applicants educated in the old apprentice method were examined, given licenses to practice, and admitted to the Society. After the turn of the century medi-

cal schools sprang up here and there like mushrooms; more and more young men were coming to locate in Rhode Island who were already armed with diplomas and medical degrees. Just when the possession of a diploma became obligatory the old records do not establish, but the date was probably before 1850. The examination before the Board of Censors was, for the most part, perfunctory and consisted chiefly of registering and showing your diploma. The Society set its face resolutely, as did that of Massachusetts, against all those claiming to practice exclusive systems of any sort. Those subscribing in our sister state swore, if memory serves correctly, not to profess to practice "allopathy, homeopathy, thompsonianism, eclecticism, or any other kindred delusions." There was, of course, never a system of allopathy. The term "allopath" was a nickname introduced by the opponents of the regular school and quickly taken up by the public, and, we fear, accepted by some of the more ignorant or careless of our own branch of the profession. Every true physician is, of course, an eclectic in the sense that he is free to use any and every agent which he conscientiously believes will benefit his patient.

The meetings of the Society, which at first were held annually in alternate years at Newport and Providence, became semi-annual in 1846, the place of the mid-year meeting being determined by vote. In 1860 Newport was abandoned as a meeting place except on special occasions. Providence was growing very rapidly and was much easier of access for the majority of the members. In 1866 the meetings became quarterly, the annual meeting to be held at Providence in June, the place for the other sessions being determined by vote. Rhode Island is the only state having quarterly meetings. Its comparatively small area and the fact that more than half of the members are located in Providence have made the frequent meetings possible and profitable.

The Providence Medical Association, which has always worked in harmony with the State Society, was organized in 1848 and has met monthly since, except during the summer months.

The American Medical Association held its first convention in Philadelphia in 1847. Rhode Island has always sent delegates. Dr. Usher Parsons was First Vice-President in 1853 but the state has never been honored by being given the presidency.

The Rhode Island Medical Society was the first to send delegates to the annual meetings of its sister societies and the A. M. A.

In 1858 the Society began to publish its "Transactions" with minutes of its meetings, selected papers and obituaries, frequently with pictures of the departed members. They continued to be published until 1912 when THE PROVIDENCE MEDICAL JOURNAL assumed, in part, their functions. While the JOURNAL, a monthly, brings the record to us more promptly, there can be no doubt that the "Transactions" furnished a more complete and more permanent medium.

As for the meetings themselves: in spite of the valiant efforts of Geo. L. Collins, Sr., and some of his colleagues to reform them, they continued to be cluttered up with extraneous matters, undigested resolutions and motions, introduced only to be withdrawn or laid on the table, to such a degree as sometimes not to leave time for the reading of papers.

To the new member, entering the arena for the first time, affairs seemed to be largely in the hands of the old guard, dignified and venerable men, some of them white of hair and beard and increasingly bald as to their scalps. The discussions were very free, some of the members getting to their feet three or four times in the same case, if not squelched.

The discussion itself would sound odd today; as, for instance, one patriarch reported the efficacy of croton oil as a cure for scarlatina; at the very next quarterly meeting he reported a case of spinal meningitis which yielded readily to croton oil; another had noted that epidemics invading Rhode Island followed the course of the Blackstone River; a fourth spoke of some points of similarity between diphtheria and croup; still another, Dr. B., had noticed that when cholera infantum was prevalent we did not see so many cases of diphtheria and vice versa; finally one highly respected physician, after enumerating very carefully all of the causes of sickness in children of school age, wound up with "and, especially, reading of works of fiction."

This was only sixty years ago. Instead of smiling it is well to question whether, in spite of our instruments of precision, we, with our half digested theories and pre-announced discoveries, are not piling up missiles for the critics of 1975 to hurl at us.

In 1873, after much argument pro and con, Dr. Anita E. Tyng became the first woman to be elected to the Society. Once taken in she bore her full part in its work. Before her election it had been objected that, while a woman might do very well in nursing,

if there was anything really the matter, she would have to call in a doctor. Dr. Tyng replied not in words, but by deeds, by beginning her lengthy string of ovariectomies; and this was in the pre-antiseptic era. Her career here, in Philadelphia where she was Superintendent and Resident Physician of the Women's Hospital, and later in Jacksonville was a distinguished one. She always retained her membership here and returned frequently.

We have seen how the work of registration of births, marriages and deaths had been left to the town officers in 1850. When, after a year's time, not a single report had been returned, the Medical Society took over that work and continued it until the establishment of the State Board of Health in 1878. The creation of this board had been largely due to the Rhode Island Medical Society.

"With the appointment of Dr. Edwin M. Snow as City Registrar in 1855, the Providence records were put on a firm basis and the registration reports of the city begun by him and continued to this day are recognized as the best in the country." (C. V. C.)

"Dr. Snow was one of the leading sanitarians of the day and his first and only report as Superintendent of Health, in 1856, remains a model. When asked, years later, why he never wrote another, he said, because he was waiting for the City Council to do some of the things he had recommended." (C. V. C.)

In 1871, through the efforts of our legislative committee and despite the opposition of the liquor interests, the legislature passed the law requiring the examination and registration of pharmacists and creating the Board of Pharmacy.

Many and vital innovations have been made through the initiative and co-operation of our Society. One of the most important was the Medical Examiner Act which did away with most of the abuses, inadequacies and delays of the old coroner system. This was enacted in 1884.

Dr. H. W. Williams of Boston, an honorary member, in 1878 urged that we secure a law governing the registration of physicians and regulating the practice of medicine, so as to protect the public, and, incidentally, ourselves from the numerous charlatans and quacks who infested the country. His suggestion was followed, a committee was appointed and worked faithfully; but many of the legislators, as well as of the public, thought that the doctors were trying to put something over for their

own aggrandizement, rather than for the good of society at large. The law was finally secured, after sixteen years lobbying, in 1894.

The two acts, one compelling the examination and registration of pharmacists, the other accomplishing the same ends for the medical profession, constitute the most important protection, the greatest benefaction to the people of Rhode Island, which our Society has been able to make.

With the passage of the Medical Practice Act came one more change in the method of examining candidates. Examination by the Board of Censors had never provided an adequate test of an applicant's ability or attainments. In 1885 a board of five examiners was created and thereafter a real test, both written and oral, was given. The ultimate passage of the "Act Regulating the Practice of Medicine" automatically abolished the board of examiners, its function devolving upon the State Board of Health.

The A. M. A., which began in 1847, was so loosely organized and had become so unwieldy a crowd of delegates, that it was reorganized in 1900 on essentially its present lines. The Society had sent delegates annually; it now joined the American Medical Association in 1902, and adopted its polity, which placed the control in the hands of the Council and House of Delegates and provided that all matters of business must be submitted to these bodies before being brought before the Society. With this radical change our meetings, for the first time in our history, became orderly and allowed ample time for reading and discussing the papers presented.

The need of a home and school for defectives was first suggested in 1904; of a psychopathic hospital in 1905. The Sanatorium at Wallum Lake was opened in 1906; the Providence City Hospital in 1910, and the School for the Feeble-Minded in 1907. All of these indispensable projects originated in the R. I. Medical Society. The City Hospital (now the Charles V. Chapin Hospital) speedily achieved the foremost rank among hospitals for contagious diseases; it was not until the summer of 1930 that it opened its Psychopathic Ward.

Two or three papers presented between 1870 and 1890 deserve brief mention as illustrating the rapid strides being made in medical science. In 1878 Dr. Caswell read a paper on "Lister's Method of Antiseptic Surgery." This was the first mention of this subject before the Society and led to many arguments pro and con. One of the die-hard conserva-

tives triumphantly polished off his opponent of the moment by tauntingly demanding "what are these germs that you believe in, but can't see?"

The transition from antiseptics to asepsis was so gradual as to leave few traces in the records. Dr. Robert F. Noyes's masterly thesis on Perityphlitis in 1882 attracted wide attention. It was followed in 1886 by Dr. Reginald Fitz's paper on Appendicitis. These two remarkable monographs played the major role in establishing the identity and pathology of the disease and opened the floodgates for the greatest and most widespread torrent of surgery the world has ever seen.

It intrigues one to note that for three successive years in the late nineties the trustees of the Fiske Fund annually offered a prize of \$350 for the best essay on "The Etiology, Pathology and Treatment of Enlarged Prostate" without attracting a single paper. Evidently the trustees had gotten a little ahead of the current. The question was withdrawn in favor of something easier.

Dr. Chase Wiggin at his death left a fund emulating that of Dr. Fiske but so hampered by its conditions that for more than forty years it has absolutely failed to function. Under it a prize of \$40 has been offered annually for the best essay, "worthy of a premium," on the effects of either alcohol, tobacco, or tea and coffee on those using them, with the stipulation that, to be accepted, these effects must be proved to be harmful.

The "Rhode Island Medical Science Monthly" was started as a private venture but under the patronage of the Society in 1894. The next year it was voted that all reporters should be excluded from our meetings, thus giving the Monthly a clear field. It died in 1896 and was followed by the Atlantic Medical Weekly which soon became open to criticism for garbling and distorting the proceedings and papers. The Weekly expired in 1898.

In 1900 the Providence Medical Association began publishing the Providence Medical Journal, at first quarterly and later bi-monthly, which, in 1910, arranged to publish the proceedings and papers of the R. I. Society. This put an end to the "Transactions" after a life of sixty years. The last volume printed was that for 1911. Five years later, in 1916, it was arranged for the State Society to take over and continue the journal as the RHODE ISLAND MEDICAL JOURNAL, a monthly.

As early as 1824 Dr. Fiske had given to the Society "72 volumes containing 30,792 pages (in-

(Continued on page 108)



ROLAND HAMMOND, M.D.

*President of the
Rhode Island Medical Society*

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Meets the second Thursday in each month excepting July and August

W. A. BERNARD	<i>President</i>	Woonsocket
T. S. FLYNN	<i>Secretary</i>	Woonsocket

EDITORIALS

THE ANNUAL MEETING

The Rhode Island Medical Society innovated a new procedure this year in its annual meeting. The change was in the nature of an experiment in order that members might intelligently determine the advisability of making it permanent.

This year the annual meeting was of two days duration and included clinics in the various hospitals during the mornings, scientific papers afternoons and evenings, plus a good sized scientific exhibit. In fact the magnitude of the display was quite surprising.

After talking with those responsible for the clinics in various hospitals and with many attending those clinics there appears to have been an extraor-

dinary amount of interest and enthusiasm in them. In fact in some cases the capacity of the hospital to handle the visitors was taxed.

The Auditorium in the Medical Library is a fairly large room. This was nearly full for most of the papers. The program was a timely one involving subjects that are controversial. Further the program contained at least one symposium which leaves more than isolated papers. Men of reputation were selected to read the papers.

When one compares the value of the last annual meeting as judged by the interest shown with those of the past, it does not seem possible that the Rhode Island Medical Society will return to the former procedure,—not at least if subsequent annual meetings are of the same high type as the one just completed.

ADDRESS

EARLY AMERICAN HISTORY

(Continued from page 105)

cluding numerous plates)." Think of the time wasted in counting those pages. Many other donations were made and welcomed; but there was no place to put these books and no one to keep track of them. So it happened that when the matter of the library was seriously dealt with in 1879 only 130 volumes could be found and those were mostly exchanges from other societies.

In 1880 Dr. George D. Hersey was made librarian and under his untiring care the library assumed form and grew rapidly. In 1883, after only three years, Dr. Terry made a card catalogue of 2,503 items. In 1911 there were more than 30,000 volumes. Until 1900 the books and medical journals were kept in the rooms of the Franklin Society on North Main Street, which were stuffed almost to the bursting point. Dr. Hersey made it a point to be there, or have someone there, for the two hours each week-day during which the library was open.

In 1900 conditions had become intolerable and arrangements were made with the newly opened Public Library by which our library could occupy the rooms on the third floor, provided we furnished an attendant or librarian. Miss Dickerman's long and faithful service as assistant librarian and librarian began at that time. The privileges of the library were extended to the students and faculty of Brown and others and were taken advantage of largely. Too high praise cannot be given to Dr. Hersey for constant, unfailing interest in the library and all the hard work he did for it and the Society.

We have met in diverse and sundry places in the last 123 years, but always there has been something to eat as well as to drink. The act of incorporation in 1812 provided that it should be so. We have run the gamut from the Central Hotel on Canal Street to the Squantum Club and Biltmore. There was a time many years ago when it was voted at the quarterly session that each man should pay for his own dinner at the annual meeting. The very first business of the next meeting was to rescind that vote and they ate on the Society that day, as usual.

In 1868 the Rhode Island Hospital opened its doors to rich and poor alike. Its relations with the Society have always been very close. For some years our meetings were held there and it was voted

to give our library, such as it was, to the Hospital. These books were returned later with interest.

Equally close have been our relations with the Biological Department at Brown University, since its establishment in 1890 by Dr. Bumpus. Our meetings were held for many years in Rhode Island Hall. The co-operation between the Medical Society and Biological Department has been mutually advantageous.

Always the Society has been poor and always, until recent years, there has been the problem of how to deal with the matter of unpaid assessments. On one occasion, when Geo. L. Collins, Jr., was treasurer, it became necessary for a certain doctor, who shall be nameless, in order to obtain a coveted appointment, to show that he was in good standing in the Medical Society. He was seven or eight years in arrears. So he called on Dr. Collins, who figured up his indebtedness, took his money and gave him a receipt. He did *not* get the appointment. His death occurred shortly after, when Dr. Collins, in closing his account, discovered that he was privileged to enjoy all the facilities of the Society for a full year after death.

The Society had grown steadily from the beginning. The first mention of the need of a home of its own was made by Usher Parsons in 1859. The first donation toward a building fund was a gift of \$500 from Mrs. T. P. Shepard in 1882. In 1878 Dr. Chase Wiggin had agreed to give \$1,000, and \$25 annually thereafter, provided the Society raised \$600 a year from other sources—but this was toward the library rather than the building fund. In 1887 the General Assembly granted the right to hold property up to \$100,000 in value. A building committee was appointed; and still the matter dragged along until the Society was notified by the trustees of the Public Library that it would have to remove its books by 1912 as they were in urgent need of the space. Then the Society really got busy, committees were appointed, a site bought, plans drawn, contract let, and on June 1, 1911, the cornerstone was laid just ninety-nine years after the founding of the Society. Starting in 1812 with 49 members, it now had 410.

Dr. Frederick T. Rogers, by his hard work, unflagging zeal in the interests of the Society, and, most of all, by his contagious enthusiasm, played the leading part in the building program.

In June 1912, just one year later, the building was formally dedicated and opened. The exercises

of the day closed with a banquet at the Eloise, at which ladies were present. Dr. Abraham Jacobi, President of the American Medical Association, delivered the principal address.

The total cost of building and stacks had been about \$52,000.

The R. I. Medical Society at last had a home of its own, modern, fireproof, furnished and decorated, with an ample auditorium in which to hold meetings, a fine reading room and adequate provision for the shelving and care of its valuable library of about 30,000 volumes.

The Society now numbers 465 active, 18 non-resident and 4 honorary fellows. Its meetings are well attended, the papers presented are abreast of the science of today, the time allowed for discussion is ample but limited.

Meanwhile the City of Providence, which in 1850 had only 41,513 inhabitants and no hospital facilities whatever, had grown in 1930 to a population of 252,981 souls, beside several hundred thousands in adjoining towns and cities, served by fifteen hospitals (besides many private institutions) containing 4,355 beds and covering, among them, every specialty.

With this mass of clinical material and constant increase in facilities the Rhode Island Medical Society is destined to a long career of service to the community and state.

* * *

Before closing let us glance briefly at only a few among the many outstanding figures who have made the Society what it is. It is worthy of note that all of them were, or had been, general practitioners.

Dr. James W. C. Ely, tall, slender, austere in appearance but kindly and genial, was the very highest type of the family doctor. His wide experience, keenness of observation and skill in diagnosis made him our most valuable medical consultant. On one occasion when the writer had asked him to see a case in consultation and had started to give him the history, he was stopped by the question, "Who was his grandmother?" which, being answered, brought at once to the old doctor the memory of two generations of neuroses and psychoses. A life-long student, he was at 87 years of age more widely conversant with current medical literature than any of his colleagues.

Dr. John Mitchell was one of the most suave and courteous of men, equally at home in the sick-room

or the operating theater, beloved by his patients, and in great demand as a consultant. He was particularly considerate and helpful to the younger doctors. Few, if any, worked more faithfully for the interests of the Society and none could exert a stronger influence in its favor among the socially powerful in the community.

Dr. Clarence T. Gardner was a man of great personal charm and magnetism. Fairly tall and of unusually powerful build, he left college in 1861 when Fort Sumter was fired upon and, though nearly two years under the legal age, enlisted in the 1st Rhode Island regiment and was commissioned Lieutenant. He remained in the service over four years, but, notwithstanding that fact, took his M.D. at Harvard Medical School and joined the R. I. Medical Society in 1866 while still in his twenty-second year. He took a very active part in the Society's meetings both as an officer and contributor of papers. He enjoyed a very large practice, both medical, surgical and obstetrical, and was idolized by many of his patients. He was a born surgeon, bold but skilful. Great manual dexterity, faultless technique, and rigid attention to cleanliness enabled him to perform many successful laparotomies before the antiseptic era.

Dr. Edward T. Caswell, whom Dr. Oliver Wendell Holmes would have described as belonging to the Brahmin caste, was one of the most highly educated men, in schools here and abroad, of his time. To him belongs the credit of first bringing Listerism before the Society. He was a visiting surgeon at the Rhode Island Hospital.

Dr. George W. Carr, tall, broad-shouldered and dignified, joined the Society in 1860. When the Civil War began he enlisted and served four years as a surgeon. He retained his interest in the Society through life.

Dr. Horace G. Miller, one of the most kindly and humane of men, considerate in all his dealings with his fellow-mortals and especially so where the poor and lowly were concerned, worked zealously at all times and contributed liberally of his substance to the Society and its library. He was one of Nature's noblemen.

Dr. James H. Eldredge of East Greenwich was in all respects, save his attire, which was modern and up-to-date, "a gentleman of the old school," very genial at all times but courtly withal, reminding one in appearance and manner of a well-to-do English country squire. He was the most beloved

and highly respected citizen of East Greenwich, where he entertained the whole Society on several occasions at his house with old-fashioned, gracious hospitality. In spite of his distance from the city, he was very regular in his attendance at our meetings.

Dr. Henry E. Turner remained the old school gentleman, clinging to the long frock-coat, stock and cravat as long as he lived. Punctilious in attendance upon the Society's meetings, he was for a score of years after the passing of his father and the two Drs. David King, father and son, almost the only connecting link with the Newport branch of the Society.

Last to be mentioned from the standpoint of seniority is Dr. Robert F. Noyes. Studious, clear-headed, logical, a keen observer and intelligent interpreter of "signs and symptoms," he was a tower of strength in diagnosis and treatment and an inspiration and guide to all of his colleagues, but especially to the younger generation. The medical profession suffered a grievous loss in his too early death.

* * *

It is perhaps invidious to thus select a few from the many who have left their mark upon the Rhode Island Medical Society; but its future is assured if, in the years to come, it can command the services of others as competent and forceful.

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SOCIETIES

(Owing to our rather crowded pages, the transactions of the Rhode Island Medical Society, together with the list of officers and committees with their reports will be found in the August issue of this JOURNAL.

BOOK REVIEW

FLINN, FREDERICK B. Some Clinical Observations on the Influence of Certain Hygroscopic Agents in Cigarettes, Laryngoscope, 1935, XLV, No. 2, 149-154. Mulinos & Osborne (Proc. Soc. Exper. Biol. and Med. 32: 241-245, 1934).

Using rabbits, Flinn showed the edema caused by cigarettes using diethylene glycol as hygroscopic agent to be less than that from cigarettes using glycerine. He reports a number of clinical observations. In cases showing congestion of some portion of the mucous membrane of upper respiratory tract as result of smoking glycerine treated cigarettes, on smoking cigarettes containing diethylene glycol, congestion disappeared in 62.3 per cent and considerable improvement noted in other 37.7 per cent. On returning to glycerine treated cigarettes 80 per cent showed a return to the congested condition of the pharynx and larynx. Coughs and irritation of the tongue showed analogous results. "Summary: The combustion products of glycerine when it is used as a hygroscopic agent in cigarettes will under certain conditions cause an irritation of the throat. The combustion products of diethylene glycol cause only a slight irritation, if any, of the throat. There is some evidence that they may be beneficial where irritation is present."



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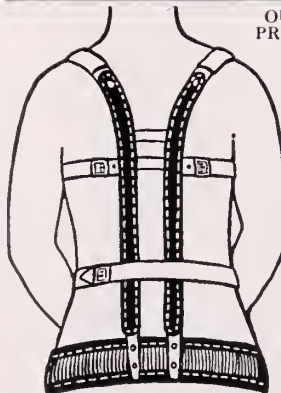
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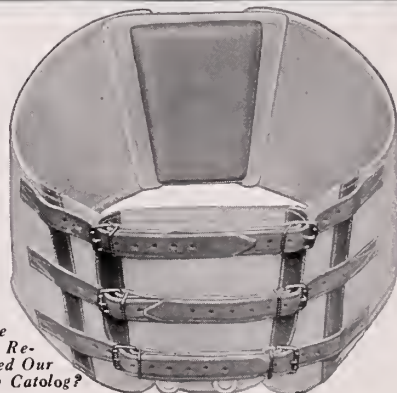
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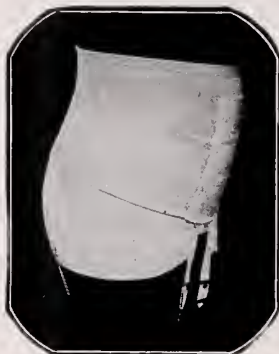
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In the first English edition of his text (1) Appert propounds his conviction:

"That the application of fire in a manner variously adapted to various substances, after having with the utmost care and as completely as possible, deprived them of all contact with the air, effects a perfect preservation of those same productions, with all their natural qualities."

Appert's findings were made empirically years before the true causes of food spoilage were known. Today, it is evident that the success of his procedure was due to heat destruction of spoilage micro-organisms, such as are associated with raw foods, and protection from subsequent contamination by such organisms.

The sterilization procedure, or the "proc-

ess" as it is termed in the industry, is an integral part of commercial canning. Essentially, it involves the heat treatment of foods sealed in hermetic containers after proper preparation; the preparatory procedures accomplishing, among other things, the removal of most of the air from the can.

The time and temperature required for sterilization of a food are dependent upon many factors. The establishment of proper processes for canned foods is not a haphazard procedure; scientific methods constantly refined during the past two decades serve to determine the times and temperatures which must be used.

The findings of the physical chemist as to the rate of penetration of heat into the food are combined mathematically with data obtained by the bacteriologist on the thermal resistance of spoilage micro-organisms (2).

From this calculation are determined the proper processes necessary to destroy spore-forming spoilage bacteria whose thermal resistance are much greater than those of the pathogens.

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(1) *The Art of Preserving*, M. Appert, Black, Parry and Kingsbury, London, 1811.

(2) *Thermal Process Time for Canned Foods*, C. O. Ball, Natl. Res. Council Bulletin, v. 7 No. 37, 1923

(3) *Preventive Medicine and Hygiene*, M. J. Rosenau, Appleton-Century, N. Y. 5th Ed. 1927.

This is the third in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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SHRINKAGE OF THE TURBINATES

EFFECTED BY BENZEDRINE INHALER IN THE TREATMENT OF HAY FEVER

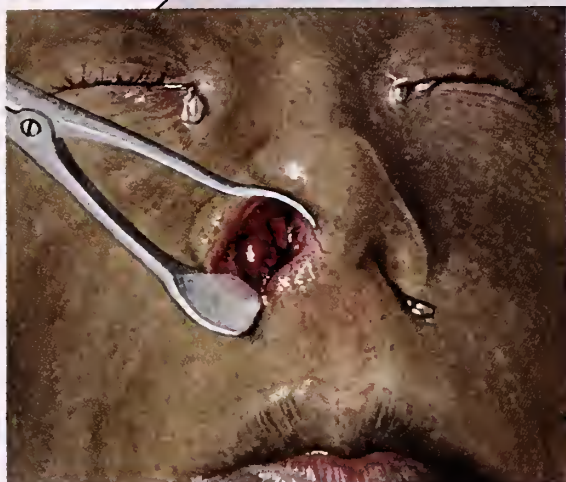


FIG. (i) 3:02 P.M. Before Treatment

CASE No. 1 (B.C.) Female. Colored. Acute hay fever. Seen at Nose and Throat Clinic of a Philadelphia hospital, May 28, 1934. The inferior turbinates were badly engorged and there was considerable lacrimation as seen in Fig. (i). Following four inhalations (two in each nostril) from Benzedrine Inhaler, the turbinates were shrunk as in Fig. (ii) and there was relief from lacrimation.



FIG. (ii) 3:07 P.M. After using Benzedrine Inhaler

These pictures were made by William B. McNett from actual cases seen at the Nose and Throat Clinic of a large Philadelphia hospital. They illustrate strikingly the beneficial effects obtained by inhalation from Benzedrine Inhaler during an acute attack of Hay Fever. They also confirm previous publications as to the value of Benzedrine in this condition.

"The vasomotor and 'hay fever' group was like-

wise benefited." *Bertolet, Medical Journal & Record, July 20, 1932.*

... results in hay fever "were definitely encouraging. There was definite proof, in this type of case, that the amount of secretion was diminished, the subjective itching and feeling of fullness relieved and decongestion of the mucous membrane accomplished." *Byrne, New England Journal of Medicine, Nov. 23, 1933.*



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FIG. (i) 2:20 P.M. *Before Treatment*

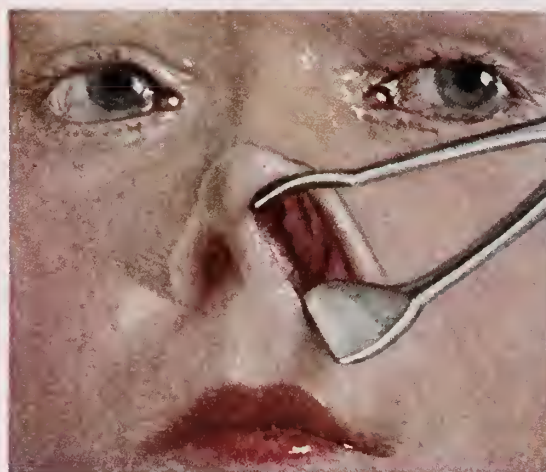


FIG. (ii) 2:35 P.M. *After using Benzedrine Inhaler*

CASE No. 2. (M.S.) Female. White. Acute hay fever. Seen May 28, 1934 at the Nose and Throat Clinic of a Philadelphia hospital. 2:20 P.M.—Turbinates dry and engorged. Two inhalations from Benzedrine Inhaler. 2:22 P.M.—Turbinates moist and dripping—some shrinkage. 2:35 P.M.—Maximum shrinkage and complete symptomatic relief. Small spur visible on turbinate.

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THE RHODE ISLAND MEDICAL JOURNAL

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ORIGINAL ARTICLES

THE ELECTROCARDIOGRAM IN THE DIAGNOSIS OF HEART DISEASE*

By DR. FRANK B. CUTTS
RHODE ISLAND HOSPITAL

The electrocardiograph has been in clinical use in the diagnosis of heart disease for a period of somewhat over 20 years. During this time considerable data has accumulated to enable careful observers to evaluate this rather specialized method of examination. As would be expected, the electrocardiogram has been found to be especially helpful in the diagnosis and management of certain types of cardiac abnormality. In other types of heart disease or deranged cardiac function, this method of studying the patient has yielded less information of value.

In the diagnosis and care of any patient with symptoms or signs of cardiac disease, the clinician should know in a general way how much or how little information the electrocardiogram is likely to afford, and thus whether it is apt to justify whatever trouble and expense may be involved. My purpose in this brief discussion is to roughly evaluate this method of examination in various conditions, and to show you a few examples of the more common abnormalities observed in the electrocardiogram.

Disturbances of the rate or rhythm of the heart beat are especially well adapted for investigation by this method. Thus, when the heart beats too rapidly or too slowly, or when it is irregular, the electrocardiogram almost always gives a clear indication of the mechanism involved. Perhaps next in importance and accuracy is the information afforded regarding the normal or abnormal condition of the myocardium. In coronary thrombosis, an acute disturbance of the myocardium, the electrocardiogram is of great value and often presents diagnostic abnormalities. In active rheumatic fever, information regarding the presence and ex-

tent of myocardial involvement is frequently available in the electrocardiographic tracing. The extent of myocardial damage resulting from hypertension or from coronary arteriosclerosis can often be quite accurately estimated by this method. The last common type of aid afforded by the electrocardiogram that I intend to mention, is the guidance afforded in the administration of digitalis and quinidine. These drugs in sufficient amounts cause rather characteristic changes in the tracings. Thus, the electrocardiogram may be of distinct aid in deciding whether a patient, receiving digitalis, who is nauseated and vomits in the course of congestive heart

TABLE I

THE ELECTROCARDIOGRAM IN THE DIAGNOSIS OF VARIOUS CARDIAC ABNORMALITIES

A. *Almost Always Diagnostic*

1. Disturbances of Rate and Rhythm:

- a. Sinus Arrhythmia
- b. Auricular Extra-Systoles
- c. Auricular Paroxysmal Tachycardia
- d. Auricular Flutter
- e. Auricular Fibrillation
- f. Ventricular Extra-Systoles
- g. Ventricular Paroxysmal Tachycardia
- h. Partial and Complete Heart Block

2. Recent Coronary Thrombosis

B. *Frequently Valuable*

1. Acute Rheumatic Fever
2. Congenital Heart Disease
3. Chronic Myocardial Disease:
 - a. Hypertensive Heart Disease
 - b. Deficient Coronary Circulation due to Arteriosclerosis, Syphilis, etc. (Angina Pectoris)
4. Advanced Valvular Heart Disease
5. Digitalis and Quinidine Intoxication

C. *Rarely Valuable*

1. Aortic Aneurysm without Valvular Disease
2. Slight to Moderate Valvular Disease

This table is intended to include only the more frequently encountered cardiac abnormalities. An attempt has been made to group these abnormalities according to the aid afforded by the electrocardiogram in their diagnosis.

*Read before the Rhode Island Medical Society, June 5, 1935.

failure, has taken too much or too little of this drug.

On the other hand, patients with heart disease are at times encountered in whom the electrocardiogram does not afford helpful information. A slight to moderate degree of valvular heart disease, especially that resulting from rheumatic fever, may be accompanied by a normal tracing. Aortic aneurysm without involvement of the aortic valves is not, strictly speaking, a cardiac abnormality, and its presence can but rarely be suspected from the electrocardiogram. Angina pectoris is at times accompanied by a normal tracing. Thus we see that a normal electrocardiogram does not always rule out the presence of a definite cardiac or cardiovascular abnormality.

At this point lantern slides illustrating common electrocardiographic abnormalities were shown.

In conclusion, I should like very briefly to quote from Pardee's book on the "Clinical Aspects of the Electrocardiogram." He says, "Like the heart sounds, the electrocardiogram must be considered as an integral part of the whole clinical picture. The importance of the record is great, but it must be emphasized that it furnishes only one aspect of the diagnosis."

MISCELLANEOUS

ASSOCIATION OF SINUS DISEASE AND MIDDLE EAR INFECTION

The following conclusions are based on more than 100 cases of mastoiditis in private patients which M. M. CULLOM, Nashville, Tenn. (*Journal A. M. A.*), has observed since the influenza epidemic of 1918. 1. One thing stands out with startling distinctness in these studies and that is how intimately infection in the middle ear is bound up with infection in the paranasal sinuses. 2. When one considers the fact that four different types of investigation show from 85 to 95 per cent of sinus involvement in middle ear infections, the magnitude and importance of the sinus problem becomes apparent. 3. Careful investigation shows sinus involvement in 91 per cent of a large number of cases of scarlet fever. The inference may be drawn that the other exanthematous diseases and epidemic influenza have also a high incidence of sinus involvement. From this it can be seen that a large percentage of the population have sinus involvement at one time or another. This means that a large proportion of the population are menaced by infection

that may result in deafness, disease and death. 4. Sinus disease appears to be confined largely to human beings. Other animals appear to be practically immune to sinus infection and its crippling sequelae. When our ancestors walked on "all fours" the openings in maxillary sinuses were at the bottom or most dependent portion, thereby being in the most favorable position for drainage, as was also the opening in the sphenoid sinus. When man began to walk in the upright position the openings in the antrums were thrown to the top, or in the most unfavorable position for drainage. Hence it appears that sinus disease is a penalty man pays for assuming the upright position, thus radically changing the design of the Creator.

OXYGEN IN TREATMENT OF ACUTE CORONARY OCCLUSION

ALVAN L. BARACH and ROBERT L. LEVY, New York (*Journal A. M. A.*), state that anoxemia of the heart muscle occurs after sudden occlusion of a sizable coronary branch. Oxygen want induces impairment of cardiac and respiratory activity. The inhalation of oxygen, in high concentration, increases the oxygen content of the arterial blood and results in improvement in the functional capacity of the heart. The beneficial effects of oxygen treatment in cases of coronary thrombosis have been confirmed in clinical reports by Ulrich, Kilgore and Bickel. A group of sixteen new cases that the authors have studied have confirmed their earlier impressions and, in the cases which have responded favorably, may be summarized as follows: 1. Subjective improvement occurred in from one to three hours after the administration of oxygen was begun. The relief of pain was striking. Respiration became less labored and slower. The patient was no longer restless. It was therefore possible to curtail materially or even stop entirely the use of morphine and other sedatives. 2. Cyanosis was diminished or abolished. 3. Cheyne-Stokes breathing, if present, gradually disappeared. 4. The temperature, in cases in which it was elevated, tended to fall. 5. The heart rate became slower. The heart sounds grew stronger and the volume of the pulse improved. The signs of congestion in the lungs became less marked. As the state of the circulation improved, the arterial blood pressure rose and the venous pressure fell. 6. Interruption of oxygen therapy before adequate readjustment of circulatory conditions had taken place resulted in recurrence of the foregoing symptoms and signs. The oxygen given has been usually in a concentration of 50 per cent.

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EDITORIALS

THE STATE HOSPITAL WAITING-LIST

Further over-crowding of our State Hospital for mental diseases is physically impossible and therefore it has become necessary to establish a waiting-list. The recent announcement of the State Public Welfare Department that only those patients who are dangerous to themselves or to others will be received forthwith is the logical result of the failure to provide suitable accommodations for the increasing complement of patients. A waiting-list of mentally sick patients is not a pleasant thing to contemplate, but it is unavoidable. Dr. Noyes, having

exhausted all available space, finds that even his ingenuity can go no further, and he has to stop. What this will mean to physicians and to the families of those needing hospital care, it is easy to understand. It is just as easy to envisage the hardships it will inflict upon the patients themselves, every one of whom stands in need of those helps which a hospital, and only a hospital, can supply. For years this over-crowding has been going on, and yet we did nothing about it, or at any rate, nothing really adequate. So that now we are confronted by an emergency which not even the most callous amongst us can ignore.

The State Hospital has a capacity of 1,550 beds; it is housing constantly between 2,300 and 2,400 patients. Rhode Island has the unenviable distinc-

tion of possessing the most crowded mental hospital, with one exception, in the civilized States of America. It is impossible to afford to the patients those ordinary creature comforts such as fresh air, rest, sleep and recreation which it is the business of every humane hospital to supply. When patients must climb over the foot of beds to get into them, is it not time to ask ourselves whether, perhaps, our humanitarianism has in it something more of rhetoric than of truth? Should it mean nothing to the citizens of Rhode Island that their State Hospital has no longer any day-space for the use of patients and that this day-space is fully occupied by the ever-increasing swarm of beds? Should more than eighty patients with tuberculosis be distributed among the population of the general wards? Can our complacency remain undisturbed when we are told that mentally sick people are huddled into stuffy rooms which even the least fastidious of critics would be forced to condemn? These are some of the conditions which obtain in our State Hospital for Mental Diseases.

The trouble with us here in Rhode Island is that we have become so inured to these things that we accept them as being normal. But they are not normal; for if we look about us and observe what has been done and is being done in our neighboring States we shall discover that we are suffering conditions not much better than those of one hundred years ago. Of course, if our social philosophy is such as to tolerate these conditions we will allow them to go from bad to worse; and from bad to worse they have been going for some years past. On the other hand, if we believe that the mentally sick have some rights which we are bound to respect, is it not time to do something to remedy a situation which has become a reproach to our State?

SOCIETIES

THE RHODE ISLAND MEDICAL SOCIETY

The 124th annual meeting of the Rhode Island Medical Society was held at the Library Building, Providence, R. I., on June 5 and 6, 1935.

The experiment of holding a two day meeting with clinics in the mornings and scientific sessions in the afternoons and evening, with scientific and commercial exhibits, was initiated at this time for the purpose in part of ascertaining the attitude of the Fellows toward the change in the meeting days.

The meeting was called to order at 2 P. M. on June 5th by the President, Dr. A. H. Miller.

A condensed report of the annual meeting of the Council, and of the House of Delegates, was read by the Secretary. The minutes of the March meeting were read by the Secretary, and approved.

The following delegates from other State Medical Societies were present: From Massachusetts, Dr. James L. Chute and Dr. Wm. J. McCausland; from New Hampshire, Dr. Benjamin E. Sanborn.

A vote of thanks was extended to the Providence Medical Association for its generous action in providing for the alterations in the auditorium, namely, improvements in the acoustics, new seats, and painting.

Dr. Wilfred Pickles, Secretary to the Trustees of the Fiske Fund, announced that for its 100th anniversary premium, the award of \$200.00 was made to Dr. John G. Kuhns, 372 Marlborough Street, Boston, Mass., for the best essay upon the subject "Low Back Pain — Its Etiology, Diagnosis and Treatment." The subject proposed for the contest closing on May 1, 1936, was announced to be "The Pathology, Diagnosis, Treatment and Prevention of Acute Heart Failure," the premium offered for the best essay on this subject being \$150.00.

The roll call for deceased members as appeared in the Secretary's annual report to the House of Delegates was read by the Secretary in the absence of the Chairman of the Committee on Necrology, Dr. William Mahoney.

Dr. Charles F. Perry of Block Island, upon vote of the general session, was elected a Fellow of the Rhode Island Medical Society.

The following program was then presented:

Wednesday Afternoon Program at Medical Library

Papers:

1. "The Electrocardiogram in the Diagnosis of Heart Disease: Its Value and Limitations" (Lantern Demonstration), Frank B. Cutts. Discussion by Frank T. Fulton and G. S. Mathews.
2. Symposium of Peptic Ulcer:
 - a. "Clinical Phases," Asher Winkelstein, Mount Sinai Hospital, New York City.
 - b. "Radiographic Features" (Slides), Samuel J. Goldfarb, Mount Sinai Hospital, New York City.
 - c. "Surgical Phases," A. A. Berg, Mount Sinai Hospital, New York City.
 Discussion by F. V. Hussey, S. Morein, J. F. Kenney, W. B. Cutts, D. F. Gray, and the essayists.

3. "Old Ringing Voice Sings His Last Song" (Lantern Demonstration), Eric P. Stone. This was a romantic allegory of Indian Medicine of the 15th century.

The meeting adjourned at 5:30 P. M., and a buffet luncheon was served in the building.

From 6 to 8 P. M. there was inspection of the commercial exhibits.

Wednesday Evening

The evening session of June 5th was called to order by the President at 8 P. M.

The following program was presented:

1. "A Discourse on Tumors, Benign and Malignant, Encountered in China" (Lantern Demonstration), Joseph A. Biello, Captain Medical Corps, U. S. Navy, Newport, R. I.
2. "Diagnosis and Surgical Treatment of Breast Lesions" (Lantern and Motion Picture Demonstration), Stuart W. Harrington, Chief of Department of Thoracic Surgery, Mayo Clinic, Rochester, Minn. Discussion by W. R. McGuirk, J. W. Helfrich, A. T. Jones, C. O. Cooke, P. P. Chase, E. S. Clarke, and essayist.

Meeting adjourned until Thursday, June 6th.

* * *

June 6, 1935

The Thursday meeting was called to order at 2 P. M. by the President.

The following program was presented:

Papers:

1. "The Niche: Its Significance in the Diagnosis and Prognosis of Peptic Ulcer," Russell S. Bray. Discussion by Isaac Gerber, C. O. Cooke, G. S. Mathews, H. A. Jones, Guy Wells.
2. "Some Clinical Aspects of Deficiency Diseases in Adults," Chester S. Keefer, Boston City Hospital. Discussion by W. R. Ohler, G. S. Mathews, R. S. Bray, R. R. Baldridge, A. Corvese, Jay Perkins, and essayist.

(A rising vote of thanks was extended to all the essayists who had presented a paper before the sessions.)

3. The Annual Address: "Early History of Medicine in Rhode Island," Walter L. Munro.

Following the annual address the new officers were inducted into office. Dr. Roland Hammond was elected President, and he received the gavel from the retiring President, Dr. A. H. Miller, and in a short address urged stronger organization of

the medical profession to resist hostile action against the interests of the profession. Dr. John E. Donley, First Vice-President, was unavoidably absent, and Dr. W. C. Rocheleau acknowledged his election to the office of Second Vice-President in a brief speech.

Before adjournment, to reassemble at the annual banquet at the Squantum Club, Dr. Hammond appointed the following Fellows to the following committees:

Dr. M. J. Nestor and Dr. Milton Goldberger to the Committee on Survey of Maternal Obstetrical Deaths;

Dr. Chas. S. Christie on the Committee on Emergency Medical Relief.

Dr. Alexander M. Burgess was Anniversary Chairman of the Annual Dinner, and the Speaker, Dr. Robert Cushman Murphy, spoke on "Penguin Behavior."

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D.,

Secretary

ANNUAL MEETING OF THE COUNCIL

May 22, 1935.

The annual meeting of the Council of the Rhode Island Medical Society was held at 4 P. M., May 22, 1935, at the Medical Library, with the President, Dr. A. H. Miller, in the chair.

It was voted to dispense with the reading of the minutes of the previous meeting.

The Report of the Treasurer as rendered herewith was accepted and approved, and referred to the House of Delegates for adoption.

Eight Fellows in arrears for their dues for five years were reported by the Treasurer. It was voted to lay this matter of their dismissal from the Society on the table for a year.

The resignation of Dr. J. P. Warren was accepted.

It was voted that Dr. Henry Ecroyd and Dr. W. H. McLaughlin, having reached the age of 65 years, be placed upon the retired list.

The question of jurisdiction of the Pawtucket Medical Society and the Providence Medical Association in the towns of East Providence and Riverside, having become a matter of discussion in the Pawtucket Medical Society as to the legality of the

election of Dr. G. Raymond Fox of Riverside to be a delegate to the R. I. Medical Society from Pawtucket Medical Society in which Society he held associate membership while holding active membership in the Providence Medical Association, was referred to the Council at the request of Dr. Earl J. Mathewson as per his letter as follows:

"Dear Sir:—I am sorry of the necessity of troubling you again in regard to the matter of dual membership in the district societies but it seems to me that at this present time this matter should be definitely settled.

"Since the founding of the R. I. Medical societies and the formation of district societies, it has never been definitely determined what the areas and boundaries of the Pawtucket and Providence societies are and in consequence the areas of jurisdiction overlap one another. Definite limitations of boundaries were not necessary heretofore because physicians joined the society nearest at hand, but since the advent of the automobiles and hospitals these ill defined boundaries make for confusion.

"For instance up to the present time all physicians residing in East Providence, especially those in Riverside or East Providence proper, joined the Providence Medical Association and by custom were considered a part of that district. Now, however, physicians who practice in Riverside and are graduates of the Memorial Hospital and are on the Memorial Hospital staff naturally want to join the Pawtucket Medical Association and possibly the Providence Medical Association also.

"Thus these questions arise and should be determined at this time:

"1. Whether or not these physicians should be elected regular members of the Providence Medical Association as belonging to that district and if they so desire become associate members of the Pawtucket Medical Association? Or

"2. Should these physicians be elected regular members of the Pawtucket Medical Association by their own selection and associate members of the Providence Medical Association?

"In other words should physicians have the right to select their own district or must they apply for regular membership in the district in which they reside or have an office?

"In your letter you suggested that if I desired you would refer this matter to the Council of the R. I. Medical Society. I think it is important enough to be settled very definitely at this time and would

be glad if you would refer it to the Council or give me an official opinion.

"Yours truly,

"Earl J. Mathewson, M.D."

The discussion brought out the vagueness of boundaries of areas subject to the jurisdiction of the several district societies as provided for by Article 3 of the By-Laws of the R. I. Medical Society. In accordance with Article 3, Section 12, of the By-Laws of the R. I. Medical Society, it appeared to the Council that the individual physician should have choice of the district society with which he wishes to affiliate, but that this is a matter for the two district societies concerned to agree upon in a manner satisfactory and amicable to both societies. The Council, therefore, voted that the Secretary urge upon the Pawtucket Medical Society and the Providence Medical Association to have their respective standing committees confer with the idea of arriving at an agreement whereby the physicians residing in East Providence or Riverside be permitted to choose the Society with which they wish to become affiliated with the permission to do so from the Society which is not so chosen.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*

ANNUAL MEETING OF THE HOUSE OF DELEGATES

May 22, 1935.

The annual meeting of the House of Delegates was held at 5 P. M., May 22, 1935, at the Medical Library, with the President, Dr. A. H. Miller, presiding.

The following officers and standing committees were elected for the ensuing year.

President

Roland Hammond.

First Vice-President

John E. Donley.

Second Vice-President

Walter C. Rocheleau.

Treasurer

J. E. Mowry.

Secretary

J. W. Leech.

Committee on Arrangements

Henry McCusker, Chairman; H. A. Winkler, Robert R. Baldrige, Treasurer ex-officio.

Committee on Legislation

H. E. Harris, Chairman; C. H. Holt, C. F. Gormly, President and Secretary ex-officio.

Committee on Library

H. G. Partridge, Chairman; J. G. Walsh, Eric Stone.

Committee on Publication

Lucius C. Kingman, Chairman; Harry C. Messinger, Chas. S. Christie, President and Secretary ex-officio.

Committee on Education

Harvey Wellman, Chairman; R. S. Bray, John F. Kenney, President and Secretary ex-officio.

Committee on Necrology

John Langdon, Chairman; John E. Ruisi, Herman L. Enidy.

Auditor for Two Years

Adolph W. Eckstein.

Curator

C. D. Sawyer.

A verbal report of the meeting of the Council which appears in the minutes of that body was presented by the Secretary. The recommendation of the Council to approve the Treasurer's report was received, and it was voted that the report be accepted.

SECRETARY'S ANNUAL REPORT

May 22, 1935.

I submit herewith the annual report of the Secretary upon the activities for the year 1934-35 and the present state of the Rhode Island Medical Society.

The September meeting of the Society was held at the Emma Pendleton Bradley Home, East Providence. The regular December and March meetings were held in the Medical Library. It will be recalled by the Delegates that at the annual meeting, May 24, 1934, a committee, consisting of Doctors A. T. Jones, C. F. Gormly and Norman Garrison, was appointed to consider changes in the By-Laws relative to the meetings of this Society. That this committee might obtain information helpful to them in their consideration of possible changes in meetings, it was decided to make the forthcoming annual meeting a two-day session with clinics and commercial exhibits. Frankly, this is an experiment which may or may not appeal to the Fellows as a

desirable type of meeting. At all events it may serve as an index of the members' attitude toward the problem of this committee.

The Council met November 22, 1934, and May 22, 1935.

The House of Delegates met in regular session November 22, 1934, and February 14, 1935, and in special session on January 16, 1935. All of these sessions were largely devoted to legislative and economic problems affecting the medical profession, in some instances reflecting changes impending or effected by the reorganization of the existing commission form of State government. The appropriate committees to which were entrusted the task of representing the attitude of this Society upon these problems will present reports of their activities for your consideration and action.

The membership roll of the Rhode Island Medical Society as of this date is as follows:

Active	465
Non-resident	18
Honorary	4

There were 21 new members added to the roll this past year. There have resigned or been dropped from membership nine (9), and we record with deep sorrow the deaths of the following Fellows during the past year:

M. F. Wheatland, R. R. Robinson, E. P. King, A. W. Love, H. S. Abel, O. M. Unger, S. N. Smith, Jr., P. Conca, J. E. Brown, A. A. Fisher, Chas. H. French, B. J. Lillibridge, C. H. Griffin, C. D. Easton, New York (Honorary, Non-resident). A more extended report by the Committee on Necrology will be made at the annual meeting, June 5-6, 1935.

The series of popular lectures on Sunday afternoons have been held in the Medical Library under the auspices of the Committee on Education, State and National. These have been apparently well attended in the main, and received very favorable comment. A more detailed report of the activities of this committee is embodied in the report of the chairman, Chas. L. Farrell, who will also report on the post-graduate instructional courses held during the spring.

Extensive alterations in the auditorium have been made through the generosity of the Providence Medical Association. The unsatisfactory acoustic conditions of the hall with which we have put up since the building was erected have been immensely improved by the application of a sound-

(Continued on page 120)

TREASURER'S ANNUAL REPORT, 1934

1934

Jan.	1.	CHASE WIGGIN FUND.....	\$6,892.21	
				\$6,892.21
Jan.	1.	H. G. MILLER FUND.....	\$5,609.10	
				\$5,609.10
Jan.	1.	J. W. C. ELY FUND		
		1 bond So. California Edison Co.....	\$ 980.00	
		Interest	50.00	
		8 shares Mechanics National Bank Stock.....	480.00	
		Interest in default.....		
				\$1,510.00
Jan.	1.	ENDOWMENT FUND		
		2,000 Oklahoma Gas & Electric Co. 1st Mort. 5%.....	\$1,920.00	
		Interest	100.00	
		Peoples Savings Bank.....	2,552.99	
		Bank interest	78.77	
				\$4,651.76
Jan.	1.	PRINTING FUND	\$1,677.52	
				\$1,677.52
Jan.	1.	E. M. HARRIS FUND		
		2,000 Mort. Security Corp. of Amer. 5½%.....	\$2,000.00	
		Interest in default.....		
		2,000 General Public Utilities Co. 6½%.....	1,980.00	
		Interest	156.00	
		1,000 Central Arizona Light & Power Co. 5%.....	962.50	
		Interest	50.00	
				\$5,148.50
Jan.	1.	FRANK L. DAY FUND		
		3,000 Canadian National Railway Co. 4%.....	\$2,979.75	
		Interest	135.00	
		Industrial Trust Company.....	350.59	
				\$3,465.34
Jan.	1.	HERBERT TERRY FUND		
		2,000 Missouri Public Service Co. 5%.....	\$2,003.10	
		Interest	100.00	
		Balance on hand	387.90	
				\$2,491.00
Jan.	1.	JAMES R. MORGAN FUND		
		500 Missouri Power & Light Co. 4½%.....	\$ 441.38	
		Interest	22.50	
				\$ 463.88
Jan.	1.	JAMES H. DAVENPORT FUND		
		1,000 Monongahela West Penn Public Serv. 5½%.....	\$1,027.19	
		Interest	55.00	
		Balance on hand	199.53	
				\$1,281.72
Jan.	1.	CATALOGUING FUND		
		Peoples Savings Bank, Clin. Conference Fund.....	\$ 908.47	
		Interest	18.41	
		Providence National Bank, Checking Account.....	76.44	
				\$1,003.32
Jan.	1.	PARTICIPATION ACCOUNT		
		Providence Institution for Savings.....	\$ 512.48	
		Interest	14.18	
				\$ 526.66

1935

Jan.	1.	CHASE WIGGIN FUND.....	\$6,892.21	
				\$6,892.21
Jan.	1.	H. G. MILLER FUND.....	\$5,609.10	
				\$5,609.10
Jan.	1.	J. W. C. ELY FUND		
		1 bond So. California Edison Co.....	\$ 980.00	
		8 shares Mechanics National Bank Stock.....	480.00	
		Paid Rhode Island Medical Society for Journals.....	50.00	
				\$1,510.00
Jan.	1.	ENDOWMENT FUND		
		2,000 Oklahoma Gas & Electric Co.....	\$1,920.00	
		Peoples Savings Bank.....	2,731.76	
				\$4,651.76
Jan.	1.	PRINTING FUND	\$1,677.52	
				\$1,677.52
Jan.	1.	E. M. HARRIS FUND		
		2,000 Mort. Security Corp. of Amer.....	\$2,000.00	
		2,000 General Public Utilities.....	1,980.00	
		1,000 Central Arizona Light & Power Co.....	962.50	
		Paid R. I. Medical Society for Repairs on Building....	206.00	
				\$5,148.50
Jan.	1.	FRANK L. DAY FUND		
		3,000 Canadian National Railway Co.	\$2,979.75	
		Paid for Medical Books and tax on checks.....	120.63	
		Industrial Trust Company.....	364.96	
				\$3,465.34
Jan.	1.	HERBERT TERRY FUND		
		2,000 Missouri Public Service Co.	\$2,003.10	
		Paid Rhode Island Medical Society for Journals.....	27.50	
		Balance on hand.....	460.40	
				\$2,491.00
Jan.	1.	JAMES R. MORGAN FUND		
		500 Missouri Power & Light Co.	\$ 441.38	
		Paid Rhode Island Medical Society for Expenses.....	22.50	
				\$ 463.88
Jan.	1.	JAMES H. DAVENPORT FUND		
		1,000 Monongahela West Penn Public Serv.	\$1,027.19	
		Balance on hand.....	254.53	
				\$1,281.72
Jan.	1.	CATALOGUING FUND		
		Expenses for year Jan. 1, 1934-Jan. 1, 1935.....	\$ 404.43	
		Peoples Savings Bank.....	526.88	
		Providence National Bank, Checking Account.....	72.01	
				\$1,003.32
Jan.	1.	PARTICIPATION ACCOUNT		
		Providence Institution for Savings.....	\$ 526.66	
				\$ 526.66

Collation and Annual Dinner Expenses.....\$	822.00	Cash on Hand January 1, 1934.....\$	524.12
Expenses of Secretary (Secretary service, etc.)	87.00	Annual Dues	4,235.00
Printing and Postage.....	143.80	Donations	516.40
Gas	50.79	Harris Fund	206.00
Electricity	92.23	Terry Fund	100.00
Fuel	575.00	Davenport Fund	55.00
Telephone	112.70	Ely Fund	50.00
City Water	16.04	Morgan Fund	22.50
House Supplies and Expenses	426.54	Outstanding check	1.80
House Repairs	7.60		
Librarian	1,660.00		
Janitor	720.00		
Journals, Ely and Terry Funds	69.30		
Safe Deposit	6.60		
Treasurer's Bond	25.00		
Dues, Medical Library Association	10.00		
Delegate, American Medical Association	100.00		
Insurance	298.35		
Federal tax on checks	3.18		
	<hr/>		
	\$5,226.13		
Cash on Hand to Balance.....	484.69		
	<hr/>		
	\$5,710.82		
			<hr/>
			\$5,710.82

SECRETARY'S ANNUAL REPORT

(Continued from page 117)

proofing material to the arched ceiling. The stage has been lowered and the hall painted. Before our next meeting there will be installed comfortable upholstered seats of the type used in theaters. The Society is indeed most grateful to the Providence Medical Association for its generous action in assuming the expense of these improvements amounting to \$3,000.00.

I have the pleasure to announce the gift to the Society of a photo-engraving of Dr. William T. Bull through the generosity of General Charles A. Wilson of Providence. Dr. Bull was born in Newport in 1849, graduated from Harvard in 1869, and received his degree of M.D. from the College of Physicians and Surgeons of New York in 1872. After three years study in Europe, he began his surgical practice in New York in 1875, and during his notable surgical life was made Professor of Surgery at his medical Alma Mater in 1889, translated and edited "System of Practical Surgery" by Von Bergmann, Von Brun, and Von Miculicz, and was actively connected with the staffs of St. Luke, Roosevelt, and New York hospitals. His death

occurred February 22, 1909. A native of Newport, and a direct descendant of Henry Bull who was a member of Roger Williams Colony, and twice governor of Rhode Island, Dr. William T. Bull may be considered truly a Rhode Islander, and this Society is fortunate to be able to add his likeness to our growing collection of portraits of distinguished physicians.

Emergency Medical Relief still remains an acute problem not alone for the people who are recipients of much-needed aid but also for the medical profession. The District Committees organized by the Emergency Relief Committee of the R. I. Medical Society are operating in varying degrees of efficiency. The needy are receiving medical aid and physicians are receiving compensation for rendering aid where in many instances they, previous to institution of this plan, received nothing. It is regrettable that the District Committees still are struggling to prevent a small percentage of physicians from what appears to be very much like "account padding." Gradually, these abuses are being abated by co-ordinated efforts of the District Committees, and the Director of Public Aid. It must be expected that a new vehicle will develop

creaks and squeaks until the oil of honest co-operation and unselfish service lubricates its machinery.

I wish to call attention to the need of a Defense Committee operating under the Group Policy insuring Fellows against suits for mal-practice. This committee should be a continuing committee and not, as at present, composed of the Presidents of District Societies who hold office usually for only one year's term. Such a committee maintaining its personnel without reference to its members' term of office in component societies would become better known to the Fellows who might unfortunately be obliged to seek their good offices to hear and to settle such disputes before they reach the undesirable publicity of courts of law. Moreover, such a continuing committee would be in a better position to accumulate experience in handling the delicate problems these cases always present.

The increase of pressing problems facing the medical profession and the consequent increased burden placed upon the office of the Secretary in attending meetings of committees considering these problems, leads me to ask this House to provide assistance in carrying on the expanding duties of the Secretary. I, therefore, beg leave to suggest that the House of Delegates elect at this session an assistant to the Secretary of the Rhode Island Medical Society.

I regret that illness prevented me from bearing my proper share of the burden placed upon the officers, the Committee on Legislation, and the Committee on Medical Economics in the task of presenting the viewpoint of the Society on legislative matters affecting the medical profession, which was done so admirably by those representing the Society.

In closing this annual report, may I not call to your attention and for your approbation of the whole-hearted enthusiasm and sincerely unselfish labor of these committees on behalf of the medical profession throughout the state, and especially the day in, and day out, untiring efforts of our President, Dr. Miller, to carry forward and improve the work of the Rhode Island Medical Society.

Respectfully submitted,

J. W. LEECH, *Secretary*

For Assistant Secretary, Dr. Wilfred Pickles was nominated by Dr. Roland Hammond, seconded by Dr. F. N. Brown; and Dr. C. C. Dustin was nominated by Dr. R. R. Baldrige. Dr. Dustin declined to run. Dr. Baldrige's motion was not

seconded. Dr. Pickles was unanimously elected Assistant Secretary of the R. I. Medical Society.

The following were elected members of the Defense Committee: Dr. C. F. Gormly, Providence; Dr. H. E. Harris, Providence; Dr. S. S. Sprague, Pawtucket; Dr. N. S. Garrison, Woonsocket; Dr. Michael H. Scanlon, Washington; Dr. E. V. Murphy, Newport; Dr. C. S. Christie, Kent.

ANNUAL REPORT OF THE
COMMITTEE ON ARRANGEMENTS

As the Chairman of the Committee on Arrangements, I wish to report that lunches have been served at each of the quarterly meetings of the R. I. Medical Society, throughout the year.

For the Annual Meeting, plans are under way to serve the usual collation following the afternoon meeting on June the fifth. For the Annual Dinner, June the sixth, the Squantum Club was reserved.

Respectfully submitted,

WILLIAM P. DAVIS, M.D.

ANNUAL REPORT OF THE
COMMITTEE ON PUBLICATION

Mr. President:—Because it is customary for the chairmen of committees to make yearly reports of their activities, I am making this report with very little to report.

The editorial department has been efficiently criticized for some of its editorials by some members of the profession, and most warmly congratulated for the identical editorials by others, showing something of the perversities of the human mind; we are, however, still able to bear up under this dual load and the administration of the JOURNAL has little complaint.

The financial report as given by our able business manager is as follows:

Receipts	\$3,032.35	<i>Disbursements</i>	
Bal. Bk. 1/1/34	278.58	Printing	\$2,279.22
	\$3,310.93	Editorial	150.00
Disbursements	3,057.22	Comm.	500.00
		Expen.	110.00
Bal. 1/1/35	\$ 253.71		\$3,039.22

REPORT OF 1935 TO DATE, MAY 1, 1935

Receipts	\$1,046.47	<i>Disbursements</i>	
Disbursements	895.22	Printing	\$ 699.62
		Editorial	25.00
		Comm.	150.00
		Expen.	20.60
Bal. to date	\$ 151.25		\$ 895.22

C. W. SKELTON, M.D., *Business Manager*

It has been remarked that these financial reports are somewhat brief and should be itemized in more definite detail and also coupled with a yearly auditor's report, to all of which we are glad to subscribe, considering this proposition as a sound business procedure.

We are constantly receiving books for review many of which are of considerable value. The publishers wish a merited opinion of these books and are entitled to it. We are not properly reciprocating and hereafter if the written review cannot for any reason reach the editor in 30 days, we must ask the return of the book.

In closing, however, I wish to acknowledge with appreciation the many courtesies and help that have been extended to the JOURNAL during the past year.

Respectfully submitted,

FREDERICK N. BROWN

THE ANNUAL REPORT OF THE COMMITTEE ON EDUCATION

The activities of the Committee on Education have been directed toward the education of the general public on health subjects.

Free public lectures were given at the Medical Library every Sunday afternoon during January and February, and short talks were broadcast by members of the Society every Wednesday afternoon over WPRO.

The lectures were well received and well attended in spite of the continued inclement weather of last winter.

Through the courtesy of Cherry & Webb Co. the lectures were broadcast on WPRO. The audience took advantage of the offer of one speaker to answer questions and also evinced a marked interest in the displays arranged after each lecture. The demonstrations varied in character from a display of diabetic and anemic diets to a first aid drill by the Providence Fire Department under Chief Charlesworth.

Beginning with the late Dr. Unger we have conducted a series of medical broadcasts which have continued to the present time. Dr. Unger traced medicine from the earliest times to the present, and after his death, Dr. H. L. Emidy of Woonsocket talked on common children's diseases. He was followed by Dr. Vincent Ryan on "Skin Diseases," and at the present Dr. J. J. Gilbert is covering eye, ear, nose and throat diseases.

We believe we have aroused the interest of the public because of the numerous requests received from points as distant as Springfield as well as points more local.

The committee urges that future talks be mimeographed and distributed as there seems to be a genuine need and appreciation of this service.

Respectfully submitted,

CHARLES L. FARRELL, M.D.,
Chairman

REPORT OF TRUSTEES OF THE RHODE ISLAND MEDICAL SOCIETY BUILDING

The most important event of the year has been the renovating of our auditorium.

The Trustees of the building having given their approval, the work has been carried on under the direction of a committee appointed by the Providence Medical Association. The ceiling has been replastered with Kalite to improve the acoustics, the platform has been lowered, and the walls redecorated. New seats are to be installed before our annual meeting. The Providence Medical Association appropriated the money for these improvements. Last fall the outside woodwork of the building and the screens were painted. During the winter, new linoleum was laid in the janitor's hallway and minor plumbing repairs have been necessary.

Respectfully submitted,

JOHN E. DONLEY, *Chairman*

REPORT OF THE CANCER COMMITTEE

The Cancer Committee of the Rhode Island Medical Society makes the following report:

There have been two meetings. The first was called October 29, 1934, Dr. Pitts presiding; Dr. Waterman, secretary; Drs. O'Connell, Gerber, Chase and Clarke present.

As none of the out of town men attended this meeting, very little could be done except to discuss the questions in the broadest terms.

The second meeting was called December 4, 1934, Dr. Pitts presiding; Drs. Rocheleau, Christie, Gerber, Clarke, O'Connell and Waterman present.

It was suggested at this meeting that doctors connected with hospitals in Westerly, Newport, and Woonsocket be urged to form a local Tumor Clinic that could function with the Tumor Clinic of the Rhode Island Hospital. Dr. Rocheleau stated that they were already considering establishing

such a clinic in Woonsocket Hospital. Discussion brought out the opinion that whatever was done in the establishment of such clinics should be done by the medical profession without aid or direction by either the State or Federal Government.

The Committee recommends the establishment of a Bureau of Speakers on cancer to fill the demands that are made from time to time by lay organizations. A list of these speakers should be kept by the R. I. Medical Society from which individuals could be detailed to speak upon request. It is the request of the Committee that they be allowed to present a list of the names of men qualified and willing to talk on various branches of cancer.

Respectfully submitted,

HERMAN C. PITTS, *Chairman*

It was voted to accept the report, and to continue the committee.

It was also voted that the Committee on Cancer be authorized to make and maintain a list of speakers available for talks to lay organizations on the subject of cancer control.

REPORT OF COMMITTEE CONSIDERING CHANGE IN BY-LAWS

Your Committee reports that it has communicated with several County and District Societies with the following results:

In Favor of a Change in By-Laws and Having One Yearly Meeting of Two Days:

Pawtucket Medical Society
Woonsocket Medical Society
Kent County Medical Society
Newport County Medical Society

In Favor of Not Changing the Meetings but to Continue Quarterly Meetings as at Present:

Washington County Medical Society

The Committee feels that it would be wise to take a vote of the members of the Rhode Island Medical Society on the wisdom of changing the By-Laws and having one annual meeting after the coming meeting of the Society in June, as at this time the two-day meeting is to be tried out. It would seem as if the sentiment of the members can best be obtained at this time when we see the results of this two-day meeting.

Respectfully submitted,

A. T. JONES, M.D., *Chairman*

Dr. Gormly moved that a questionnaire be sent to the Fellows asking them to indicate their pref-

erence for the form and frequency of the meetings of the R. I. Medical Society, and that the report of the committee be accepted and the committee continued. Upon being duly seconded the motion was carried.

REPORT OF COMMITTEE ON EXPERT MEDICAL TESTIMONY

Your Committee appointed to study the question of Expert Medical Testimony has met in conjunction with a similar committee appointed by the Rhode Island Bar Association, and now begs leave to submit the following report:

The subject of expert testimony, or opinion evidence, and particularly medical testimony, has received much attention from both the medical and legal professions over a long period of years, in an attempt to correct many of the abuses arising from this practice.

Your Committee has continued its work over several years, meeting first as a Medical Committee and later in conjunction with legal representatives. An historical survey of work accomplished by similar committees in other states as well as in foreign countries was first made. This activity has been very creditable in many states, and laws have been placed on the statute books in California, Delaware, Michigan, New Jersey, Minnesota, New York and also in England and Germany. As experience has pointed the way these procedures have been simplified and several states have evolved statutes, some of which are proving successful in practice. The most practical as well as the most popular law is that under which a disinterested expert is appointed by the Court. He ascertains the facts and makes an examination under the direction of the Court, and files a report with the Court. At the same time litigants are permitted to summons expert witnesses of their own volition, but the number of these experts is limited by order of the Court. Compensation of the expert may be proportioned between the parties to the action, or may be paid by the state from funds appropriated for the payment of witnesses.

After examination of existing Rhode Island statutes by the legal members of this joint committee, it was believed that certain changes in these statutes would provide the basis for an improvement in the character of expert testimony in this state. Such a statute has been tentatively drawn up and approved by the joint committee. The expert selected by the

Court may be examined by the parties both as to his qualifications and as to his bias. The parties are free to introduce additional expert evidence, although the Court is authorized to limit the number of experts that may be called by any party.

After this proposal has been put into operation we believe that many competent and reputable members of the learned professions and other expert callings will decline to accept private retainers and will testify only when called in by the Court. Similar provisions for expert testimony have been adopted in England and in California and are now under consideration in several other states.

We suggest that the Committee on Legislation of the Rhode Island Medical Society be instructed to co-operate with a Committee of the Rhode Island Bar Association in an attempt to have this statute enacted at the next session of the General Assembly. Your Committee requests that they be discharged.

Respectfully submitted,

JOHN E. DONLEY, M.D.
CHARLES F. GORMLY, M.D.
ROLAND HAMMOND, M.D.

SUGGESTED RHODE ISLAND STATUTE

(As Revised by Committee May 20, 1935)

An Act Relating to Expert Evidence

(5002) SEC. 18. Whenever it shall be made to appear in any cause, civil or criminal, pending before the Superior Court, that expert evidence is, or will be required, any justice thereof may, on motion of any party, or on his own motion, upon notice to the parties or their attorneys and a hearing upon such motion, at any time before or during the trial thereof, appoint one or more disinterested skilled persons, whether they be residents or non-residents, to serve as expert witnesses therein. The reasonable fee of such experts who are appointed by the court, according to the character of the service to be performed, shall be fixed by such justice or the justice who tries the cause, and shall be paid by the state upon order of the court, out of the funds appropriated for the payment of witness fees. In criminal cases in the discretion of the court, on request of the defendant, expert witnesses may be furnished for the defendant at the expense of the state, on such terms and conditions as may be prescribed by the court.

(5003) SEC. 19. Such experts being first duly sworn before a justice or clerk of the court to make a faithful and impartial examination into the matters and things committed to them, and true report thereon to make according to the best of their knowledge, belief, and understanding, shall thereupon proceed to view and examine such persons, matters, and things, to read and hear such evidence, and such hypothetical questions and other matters or questions as may be submitted to them by the court and in such manner, times and places whether by attendance at the trial of such cause or otherwise as the court may direct,

and to report their findings, views, and opinions thereon, jointly or severally, orally or in writing, to the court where such cause shall be pending, before or at the trial thereof, in such manner as the justice appointing them or any justice of the court sitting in the cause, shall prescribe; and such report, if in writing, shall form part of the record of the cause, and shall be produced or not produced in evidence at the trial thereof, as the court may direct, and such experts shall attend at such trial until excused by the court.

The experts may be called by the court at the trial of the cause and be examined by it, or they may be called by any party to the cause and may be examined and cross-examined at the trial as to the matters, questions, persons, things, views, findings and opinions of such experts in relation to the matter as to which they were appointed as experts by the court, without further summons. They may be examined and cross examined by any party to the cause at the trial as to their competence and qualification as experts and as to their bias. The court may direct the order in which the experts may be cross-examined by the several parties when they are called and examined by the court.

When such witness is called and examined by the court, the several parties shall have the same right to object to the questions asked and the evidence adduced as in the case of those witnesses called and examined by an adverse party.

SEC. The court may at any time before the trial or during the trial limit the number of expert witnesses to be called by any party.

It was voted to accept the report of the Committee on Expert Medical Testimony and to discharge it as requested.

REPORT OF COMMITTEE ON SURVEY OF CAUSES OF MATERNAL DEATHS IN RHODE ISLAND

Your Committee which has been making a survey of the causes of maternal mortality in Rhode Island has continued its work during the past year. This is the fifth year of the survey. Next year it hopes to make a preliminary report of its findings for the five year investigation. It will have for analysis approximately three hundred cases, a sufficient number from which to draw definite conclusions which cannot be done on the small number of cases reported each year.

In the year 1934, sixty-six cases were investigated. Of these fifty-eight were officially recorded as puerperal deaths. Of the fifty-eight so recorded we have classified six as non-puerperal. A brief summary follows:

1. A known cardiac who died suddenly at home undelivered and not in labour.
2. Another cardiac dying suddenly at home undelivered and not in labour.

3. A case of acute appendicitis with rupture of the appendix which was operated upon. The patient fell in labour after the operation, was delivered and died.

4. A case of appendicitis in a woman, five months pregnant, who was operated upon, developed general peritonitis and miscarried shortly before death.

5. A woman, five months pregnant, who died on the fifth day of an attack of broncho-pneumonia. This case was officially reported as toxemia of pregnancy and broncho-pneumonia. There was no evidence of toxemia. She was undelivered and not in labour.

6. A death recorded as due to abortion without septic condition. The patient inserted a tablet of bichloride of mercury into the vagina in attempt to induce an abortion and died of mercury poisoning. An autopsy revealed no evidence of pregnancy.

There was one case which was recorded as non-*puerperal* which we believe should have been recorded as *puerperal*. This patient was delivered April 8. She was admitted to a general hospital May 4 in shock and complaining of severe abdominal pain. About two weeks after her delivery she began to have dull abdominal pain. She died May 6. Autopsy showed the cause of death to be mesenteric thrombosis. Femoral and pelvic thrombosis with or without emboli as causes of death following delivery are considered *puerperal* and we believe that in this case the mesenteric thrombosis was an analogous condition.

These cases, briefly reported, show conclusively that under the rigid rules as laid down in the manual of joint causes of death which the registrar of deaths must perforce follow, inaccuracies in vital statistics are inevitable.

Respectfully submitted,

EDWARD S. BRACKETT, M.D.,
Chairman

It was voted to accept the report as rendered, and to continue the committee.

REPORT OF THE
MEDICAL EMERGENCY RELIEF COMMITTEE OF THE
R. I. STATE MEDICAL SOCIETY

The following is the second report of the Emergency Relief Committee of the R. I. State Medical Society and covers the period since the last annual meeting of the State Society. This period might be

spoken of as the second phase of the work of your Committee.

The personnel of the Committee has remained the same except in the case of the Woonsocket District Society's representative. The substitution of Dr. Henri E. Gauthier for Dr. E. D. Clark was made by the President at the request of the Chairman of the Committee. The Chairman felt that his inability to establish contact with Dr. Clark either by letter or at the committee meetings necessitated this change, that Woonsocket might be properly represented.

As this second phase of your Committee's activities were to be largely those of an advisory nature and inasmuch as each District Society using the Plan should have an active local "Emergency Relief Committee" to conduct its own affairs, we have deliberately avoided any attempt to alter the accepted Plan. However, it would appear that now, after a year of this Plan, it might be further developed, elaborated and extended with some benefit to all concerned. Something along this line would have been started were it not for the fact that under the new plan of the State Government Administration it is proposed to set up an entirely different State Unemployment Relief Committee or Governor's Committee. It was anticipated that this new Committee would have been formed and functioning weeks ago but with the adjournment of the legislature it became a part of the unfinished business. It is now expected that the Special Session will provide the necessary authority for this new Committee. We are kept in touch with this situation through the Governor's secretary.

While the plan now in operation has on the whole worked best in those sections where the profession was most interested and active, it is thought by many that it should provide and authorize other services than the care of acute illness, chronic illness and obstetrics in the home. For instance it is suggested that payment for minor operations, laboratory work, consultations, X-ray examinations, glasses and surgical appliances such as braces and trusses should be provided. Whether or not this expansion of the plan to include these is possible, will rest with your Committee and the new Governor's Committee.

The following figures are an accurate statement of the amount of money spent for medical relief as submitted by Mr. Cody, the secretary of the Emergency Relief Commission of Rhode Island. It is to be noted that the total expenditures from Feb. 1,

1934, to Dec. 31, 1934, for the entire state was \$83,429.58 while the period covering the first three months of this year shows a total of \$55,370.90. During this latter period our State Wide Plan can be said to have been working at its maximum. This is an increase of 143% in the cost of medical relief for these three months as compared with an average three months in the year of 1934. By far the greatest part of this increase represents money paid directly to the doctors for care of unemployed sick in their homes that could not possibly have paid it for themselves.

CITY OR TOWN	Feb. 1, 1934	Jan. 1, 1935
	to Dec. 31, 1934	to March 31, 1935
Barrington	\$ 61.20	\$ 58.20
Bristol	2,189.45	1,361.50
Burrillville	721.18	236.65
Central Falls	282.94	39.90
Charlestown		
Coventry	421.25	159.50
Cranston	1,211.13	2,151.79
Cumberland	679.85	204.08
East Greenwich	123.50	182.00
East Providence	2,342.67	2,641.94
Exeter		
Foster	2.00	
Glocester	42.00	16.00
Hopkinton	14.00	
Jamestown	2.00	56.15
Johnston	456.27	1,121.13
Lincoln	276.62	151.34
Little Compton	7.00	4.50
Middletown	63.10	48.34
Narragansett		
Newport	255.82	323.28
New Shoreham		
North Kingstown		1.50
North Providence	746.75	534.91
North Smithfield	642.65	121.43
Pawtucket	12,894.71	6,123.89
Portsmouth	402.00	116.60
Providence	45,054.04	32,686.37
Richmond	24.55	2.50
Scituate	223.85	122.89
Smithfield	618.32	289.05
South Kingstown	22.25	15.90
Tiverton	20.00	9.25
Warren	501.37	479.48
Warwick	1,915.02	896.22
Westerly	80.08	378.32
West Greenwich		
West Warwick	791.45	993.77
Woonsocket	10,340.56	3,842.52
	\$83,429.58	\$55,370.90

While the State Committee is aware that there are certain sections of this state in which the Plan has been abused and other sections in which the

physician has not taken full advantage of the possibilities of the Plan, we have felt that this is an entirely local matter that can best be straightened out by the committees of the District Societies if properly organized.

What the third phase of this work will be depends somewhat upon the plans of the Federal Government. It is now proposed that the Federal Government abandon all home relief and confine its activities to work relief and that they turn over to the state and city or town the care of all home relief for the Emergency Unemployed as well as the normal indigent of the community. Your Committee will necessarily be guided by these new conditions and it may be that an entirely new set-up under purely state auspices rather than federal will be necessary.

C. F. GORMLY, *Chairman*

W. P. BUFFUM, *Secretary*

It was voted to accept the report of this committee, and to continue the committee.

REPORT OF THE COMMITTEE ON COMMERCIAL EXHIBITS

As Chairman of the Committee on Exhibits, it gives me pleasure to report all booths have been taken.

Respectfully submitted,

C. W. SKELTON, *Chairman*

It was voted to accept the report, and continue the committee.

REPORT OF COMMITTEE ON CLINICS

The Committee on Clinics for the annual meeting of the Rhode Island Medical Society has had several meetings and has arranged for operative and dry clinics at seven hospitals in Providence and vicinity as follows:

Wednesday, June 5, 1935

St. Joseph's Hospital

Lying-In Hospital

Memorial Hospital

Thursday, June 6, 1935

Rhode Island Hospital

Charles V. Chapin Hospital

Homeopathic Hospital

Miriam Hospital

These clinics will be held on the mornings of these days, and through the courtesy of the management of these hospitals luncheon will be served to those who attend the clinics.

The hour of these clinics will be published in the general program of the meeting.

The list of operations and further details will be posted at the various hospitals on the morning of the clinics.

It is hoped that these clinics will be well attended so that they may be repeated.

Respectfully submitted,

E. S. BRACKETT
J. F. KENNEY
F. E. McEVOY
D. L. RICHARDSON
R. H. WHITMARSH
C. O. COOKE, *Chairman*

It was voted to accept the report, and to discharge the committee at the end of the annual meeting.

The work for which the following committees were appointed having been completed, it was voted that they be discharged:

The Committee to Consider the Needs of the State Hospital for Mental Diseases;
The Committee on Public Relations;
The Committee on Criminologic Institute;
Advisory Committee to the President on Health Matters.

The following resolution was introduced by Dr. E. S. Brackett:

WHEREAS the subject of the use of scientific contraceptive measures as a prophylactic against excessive child bearing among women physically, mentally or economically unable to safely bear or properly care for a constantly increasing family, is receiving greater attention than ever before from the medical profession; and

WHEREAS Federal statutes forbid transportation in interstate commerce and by U. S. mails of contraceptive devices and of literature giving instruction in or describing methods of contraception; and

WHEREAS such statutes render it difficult to discuss the subject frankly and scientifically in text books and medical periodicals; and

WHEREAS clandestine instructions and bootleg devices are constantly distributed through the U. S. mails and in interstate commerce, and contravention of the law is being encouraged not alone by commercial houses but also by all sorts of philanthropic agencies which number in their membership altruistic men and women of the highest character; and

WHEREAS contraceptive measures in one form or another are countenanced by practically all sects and creeds; and

WHEREAS the giving or withholding of contraceptive advice by members of the medical profession should be left to the judgment and conscience of the individual physician; and

WHEREAS because of the prohibitions placed on the teaching of the subject there is great need of study of the legal and scientific aspects of birth control.

BE IT RESOLVED that the Rhode Island Medical Society request the House of Delegates of the American Medical Association to initiate a comprehensive program with respect to the study of birth control, instructing its appropriate agencies to undertake the necessary scientific study; and be it

FURTHER RESOLVED that our Delegate to the House of Delegates of the American Medical Association be instructed to urge, and vote for, the adoption of such a program of investigation; and that the Secretary be hereby instructed to forward a copy of these resolutions to the Secretary of the American Medical Association.

The resolution was discussed by Doctors Farrell, Dustin, Leech, Brackett and Hammond. It was moved by Dr. Dustin, seconded by Dr. Helfrich, that the resolution be adoption. It was moved by Dr. Gornly, seconded by Dr. Oddo, that the resolution be laid on the table, and it was so voted.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*

The R. I. Medical Society reports of committees will be continued in a later issue of the JOURNAL.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

"Shrinkage" Method of Treatment of Prostatic Hypertrophy. Kirwin, Jour. of Urology, 32: 481, 1934, uses non-destructive shrinkage as a heat treatment by high frequency current. This method should not be confused with electro-coagulation nor with fulguration, which are destructive. The shrinkage method withdraws fluids and coagulates albumin. By this method the gland will be greatly reduced, without subjecting the most debilitated patient to the chance of surgical shock. The procedure is possible under spinal anesthesia. (As Dr. Kirwin states, this method is new only in better control of the amount of heat applied.—M. W. T.)

* * *

Peptic Ulcer. Emery, Am. Jour. Dig. Dis. and Nutrition, 1: 520, 1934, concludes that the disease remains active after both surgical and medical treatment, and that our present methods of treatment do not overcome the cause of the disease. That the somewhat higher incidence of complete relief which surgery gives is offset by the higher incidence of failure. Aim in treatment is to prevent relapses which must be done by a carefully regulated schedule. That surgery is indicated for patients with an X-ray retention of 30 per cent or more, and for patients who continue to bleed when on good medical schedule, and for patients whose ulcer has perforated. That patients with a hypersecretion respond poorly to all therapy but should be treated medically owing to the danger of the development of a jejunal ulcer.

We sometimes hear of "developing" disease. This is not possible since disease is always a retrogressive process.

* * *

Dermatitis Vencnata from Rhus Toxicodendron. F. Ronchese, Arc. Dermatology and Syph., 30: 645, 1934, shows that black bullous dermatitis may arise from rhus toxicodendron. The black stain comes off with the subsequent peeling of the skin.

* * *

Breast Milk is supplied by a Boston Directory. Mother's milk is sent packed in ice to all parts of New England. We may get real kumiss yet.

* * *

Morphine, Head Injuries and Alcoholism. Monro, New Eng. J. Med. 210: 292, 1934, stressed the harmful effects of morphine in connection with head injuries. Leary, in the same journal, 212: 216, 1934, shows that death may follow the use of this drug in cases where no injury adequate to cause

death was found. Leary also warns against the use of morphine in alcoholism. Morphine produces cerebral edema. Paraldehyde or the barbiturates are safer, but even the latter should be used with caution. (No one is in better position to judge the effects of drugs than a medical examiner.—M. W. T.)

* * *

Raw Apple Diet in the Treatment of Diarrhea of Children. (This is a long title for a librarian to classify. Medical articles should be properly titled and summarized — M. W. T.) McCaslan, The Southern Med. J., 27: 1021, 1934, has seen good results in this diet for diarrhea. Mellow apples were peeled, cored and grated. From 3 to 12 medium sized apples, depending upon the age of the child, were given during the day. This is used for two days. (Since each apple contains about the equivalent of a tablespoonful of sugar, it can be seen that this makes a good carbohydrate diet.—M. W. T.)

* * *

Rats, Lice and History by Hans Zinsser. It sparkles.

Focal Infection. Rosenow, Dental Cosmos, July 1934, has this to say of devitalized teeth: "It seems justifiable to regard most pulpless teeth as possible foci of infection, whether they show apical changes in the roentgenograms or not. . . . It is certain that the methods which have been used to fill root canals, even when controlled by roentgenograms, do not suffice to render apical foramina and the entire substance of the root impervious to bacteria. . . . The majority of pulpless teeth, irrespective of roentgenographic findings, are infected and hence potential foci of infection." (I believe this is true. There seems to be some differences of opinion about pulpless teeth. In New England, physicians and dentists take the conservative point of view. In New York the consensus of opinion seems to be that dead teeth can cause a great deal of trouble. Why give these teeth a chance to cause trouble. It seems to me that preventive medicine demands the removal of any potential dangers.—M. W. T.)

In Paris *Excelsior*, two ads. on same page: one for a worm syrup, advising every mother to use it for children because many worms were microscopic and couldn't be seen; the other for Dr. Payot's vitamin lip stick. Every time a woman or man licks it she or he gets "vits." Irradiated tissue next?

The Parisians must be getting short of ads. for their Vespasiennes.



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No. 9

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PROVIDENCE, R. I., SEPTEMBER, 1935

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For this belief there is not the slightest foundation of fact. Its origin probably lies in the old "ptomaine" concept of food poisoning. Why it should persist in the light of present day knowledge is a mystery. The belief that food must be emptied immediately from the can has been as thoroughly discredited as the "ptomaine" theory of food poisoning (1).

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(1) Journal American Medical Association, 96, 469, 1573 (1928)

(2) Preventive Medicine and Hygiene, M. J. Rosenau, Appleton-Century Co., N. Y., 5th Edition

(3) Food-Borne Infections and Intoxications, F. W. Tanner, Twin City Printing Co., Champaign, Illinois

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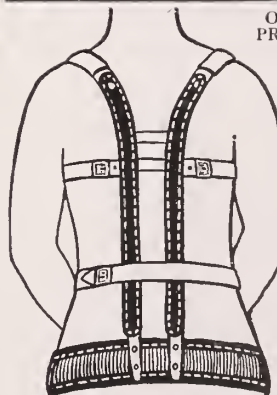
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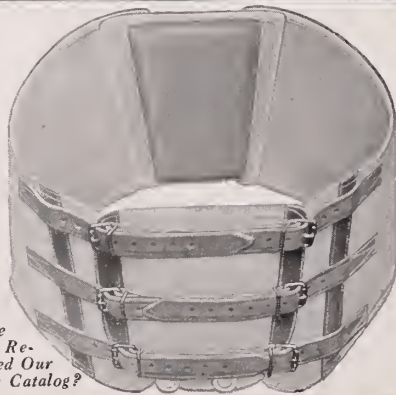
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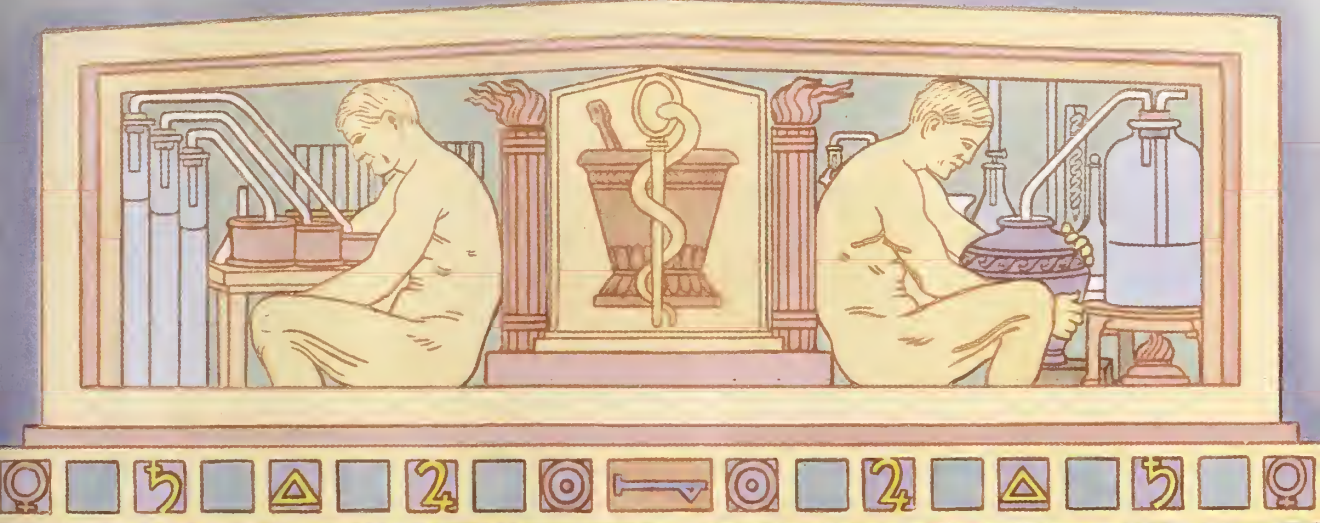


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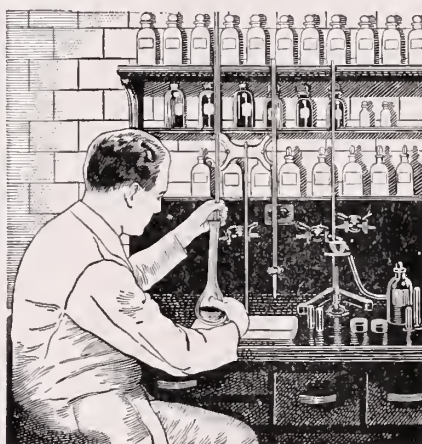
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VOLUME XVIII }
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Whole No. 312

PROVIDENCE, R. I., SEPTEMBER, 1935

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ORIGINAL ARTICLES

A STUDY OF NASAL INFECTIONS*

By JAY N. FISHBEIN, M.D.

221 ANGELL STREET, PROVIDENCE, R. I.
and

EDGAR J. STAFF, A.M., Sc.M.†

Although the nose and the paranasal sinuses are generally accepted as the portals of entry of so many local and systemic infections, the amount of data available in the literature concerning the penetration of infection through the epithelium, the manner in which the infection spreads in the subepithelial tissues and the resulting changes, is surprisingly meager.

There is, however, a considerable amount of literature regarding the treatment of infections of the nose particularly surgical. When sinus surgery was introduced into this country by men who had studied in the European clinics, some excellent results, or more accurately, spectacular results were obtained. Because of this, radical operations became the vogue and to a lesser degree still is. By radical surgery is meant such procedures as effect marked alterations of the normal mechanical arrangement of the tissues comprising the lateral nasal wall. Not only was it considered necessary to remove every bit of cell structure, but also every vestige of membrane that appeared to be pathological. Operation followed operation until the phrase "once a sinus operation, always a sinus operation" has become axiomatic and has served to prejudice the laity and the profession at large.

In an attempt to treat infections of the nose and sinuses by conservative means, the application of diathermy was undertaken and a preliminary report was published in 1933.¹ Its use was found to be effective in the treatment of nasal infections, particularly of the ethmoid sinuses. This treatment combines the use of diathermy with tampons and tends to increase the efficacy of the latter.

Method of Application

The positive electrodes are long narrow ribbons about $\frac{3}{8}$ " wide and a yard long consisting of continuous fine strands of copper closely woven (resistance about 60 m.a. per sq. inch). A piece of long fibre cotton is laid in the flat of the hand, and rolled evenly about the tape by means of a smooth applicator. (It is essential that the cotton covers the ribbon completely to avoid an unpleasant prickling sensation in the nose.) The tampon is saturated with a 7% solution of a mild silver protein containing 2 c.c. of 3% ephedrine sulphate to the ounce and inserted into the middle meatus as far back as possible in the direction of the sphenoid sinus, one on each side, following which the applicators are withdrawn. Preceding this a smaller tampon is inserted high into the olfactory fissure. The tampon is prepared in accordance with the space it is to occupy in the nose. It should never be so large as to require any force in its insertion. It is important that the delicate mucous membrane sustains no injury.

The indifferent or dispersive electrode is placed on the forehead. It consists of a piece of block-tin 4x14 c.m. fastened to an ordinary leather head band. A strip of ribbon similar to that used for the positive electrode connects it to one of the poles of the diathermy machine. The block-tin may be sparingly covered with a lubricant jelly where it comes in contact with the skin. The two ends of the ribbon from the nostrils is connected to the other pole. A current of from 300 to 500 m.a. is employed for a period of from fifteen to twenty minutes. When the tampons are removed at the end of this period they are found to be quite warm, decolorized and practically dry. Frequently stringy collections of mucus will be found to adhere to the tips of the tampons, which are removed with them as they are withdrawn.

The warmth produced by diathermy is termed conversive heat within the tissues as contrasted with conductive or convective heat which does not penetrate deeply into the body. It is a long wave and high frequency current converted into comfortable heat by the resistance of the tissues. Its object is to

*Read before The Rhode Island Medical Society March 7, 1935.

†Senior Bacteriologist, State Public Health Com. Lab.

produce an active hyperemia, to soften and liquefy deposits, increase elimination of toxins and hasten repair processes so that the injured membrane may resume its normal function.

Acute and chronic infections of the nose and accessory sinuses particularly the frontal, ethmoid and sphenoid, are benefited by the effects of the diathermy and the heat generated in the tissue, the action of the colloidal silver, as well as by the improved aeration and drainage of the upper air passages. Repeated trials have shown that the 7% solution is equally as effective as the much stronger solutions generally in use and less apt to cause local irritation.

Treatment in the following conditions have proven effective: rhinitis, acute, and chronic, hyperplastic, and hypertrophic. Also in the case of allergic conditions as Hay Fever and Asthma; acute and sub-acute, and chronic sinus infections. This work was carried on for a period of five years during which over 400 patients were treated, receiving a total of about 6500 treatments, of which 355 were chronic cases and 45 were acute or sub-acute. It can be used on children who are old enough to cooperate. A large number of the patients were Jewish, among whom there was a greater prevalence of nasal infections. These occurred in the ratio of 5 Jewish to 3.5 non-Jewish patients.

There is no more discomfort with the diathermy than there is with the tampons used alone, and by inserting them gently even this discomfort can be greatly minimized. The patient experiences a mild agreeable sensation of warmth in the nose as a result of the diathermy and occasionally in the forehead from the indifferent electrode. The current is begun at 250 m.a. and increased gradually to the point of comfortable heat. The patient should never be left alone while the treatment is being given. Occasionally as the solution is absorbed the tampon may become uncomfortably warm. Secondly the psychological effect upon the patient on being left alone is harmful. Of the 400 patients treated only three objected to the treatment; one because of an innate fear of anything electrical; the other two because of discomfort immediately following the treatment as congestion of the nasal membranes or a profuse discharge, accompanied by sneezing. If too strong a current was used some of the patients would occasionally complain of a sensation of pain or numbness in the teeth. This was particularly true if any dental pathology existed.

It was thought desirable to determine whether there was any penetration into the subepithelial tissue. There appears to be very little literature available on this subject. In corresponding with E. R. Squibb & Sons, manufacturers of Solargentum, A. C. Barnes & Co. manufacturers of Argyrol, Parke-Davis Co. manufacturers of Neosilvol and others, none of them could say definitely that absorption into the mucous membrane takes place. Barnes & Co., "while we cannot say definitely that absorption takes place, it is strongly probable, in fact almost certain that tissue reaction results which probably includes a certain amount of absorption."

Occasionally some question arises from the possibility of argyria from the prolonged use of these silver preparations. This danger has unquestionably been greatly exaggerated. In many of these cases treatment was extended over a considerable period of time without the slightest evidence of silver deposits. This fear doubtless persists from the days when it occurred more commonly, due to the widespread use of strong silver preparations in the treatment of epilepsy, tabes dorsalis, peptic ulcers, etc., used internally or injected intravenously. Local argyria has occasionally been caused due to the long-continued applications particularly in ocular conditions where the prescription was refilled without the knowledge of the physician.

Since bacteria are commonly found in the subepithelial tissue and about the glands and blood-vessels in chronic cases, the question of penetration is obviously an important one. In attempting to determine the degree of penetration some experimental work was carried out on rabbits. A narrow tampon saturated with a 10% colloidal silver solution was inserted into one nostril and connected with the diathermy similarly to the method in use with the patient. The same procedure was carried out in the other nostril which was not connected to the diathermy. The head of the rabbit was shaven and a specially constructed block-tin helmet was adjusted and a current of 300 m.a. was employed for a period of 15 minutes. To make the rabbit sufficiently submissive to allow this treatment the following procedure was carried out. The lateral ear vein of the rabbit was injected with morphine and scopolamine by Harry Pearse* 30 minutes in advance. The average dose employed was $\frac{1}{4}$ morphine and $\frac{1}{150}$ scopolamine. Considerable variability in the reactions of the rabbits were found, although rabbits of the same weight were chosen.

*Harry Pearse, M.Sc., Director of Laboratories.

This procedure was given up as unsatisfactory as it was found impossible to obtain an intact membrane. The extreme narrowness of the nostril of the rabbit caused some abrasion when the tampon was inserted and where the epithelium had been denuded, a deeper penetration into the sub-epithelial tissues occurred.

To secure an uninjured membrane the following procedure was next carried out and which proved to be more satisfactory. The rabbit was chloroformed and the head split sagittally through the septum which was carefully removed, leaving an uninjured mucous membrane on the lateral nasal walls. This surface of one side was covered with a 20% solution of colloidal silver. To approximate natural conditions as closely as possible the section was immediately placed in the incubator at a temperature of 37.5°C. for a period of twenty minutes (although lymphatic and capillary action is obviously lost.) The other half of the head was subjected to diathermy in the following manner: A tampon was placed on the membrane and saturated with the same 20% solution. A block-tin electrode was fashioned to conform to the lateral surface of the head with bands overlapping to keep the tampon in place. The specimen was subjected to a current varying from 400 to 700 m.a. for 20 minutes. The current was adjusted to give a sensation of mild heat to the touch, similar to that experienced by the patient, and was increased or decreased as was found necessary. At the end of the twenty minute period both specimens were exposed to the ultra violet rays for a period of 3 minutes. They were next immersed in normal saline for several minutes and then placed in formaldehyde. Sections were prepared in the laboratory by Mr. Pearse.

On examination the specimens that had not received diathermy showed that the membrane had absorbed very little of the colloidal silver. Practically all of the solution remained on the surface. In a few areas some of the ciliated epithelial cells showed a little of the dark brown stain. In none of the sections studied did the solution penetrate deeper than these lining cells. The specimens that had undergone the diathermy treatment showed a much deeper penetration. In many areas the solution was found in the areolar subepithelial layer and occasionally it was found that penetration had occurred to a depth of about a third of this layer. This penetration was by no means uniform, and occurred

only in scattered areas, but was sufficient to establish the essential difference, namely that diathermy did cause penetration beyond the epithelial layer.

The principal reaction to infection takes place in the connective tissue elements. There is a marked increase in the tunica propria and about the blood-vessels. The greatest evidence of infection is apparent about the vessels of the subepithelial areolar tissue as evidenced by the marked perivascular cellular infiltration.

The diathermy treatment tends to stimulate the activity of the mucous glands. Following the treatment there is usually a thin serous or mucoid discharge lasting for several hours and the result is a considerable depletion of the turgid tissue. The patient experiences a sense of relief and a feeling of clearness of the head with a loss of the dullness that they usually complain of at the bridge of the nose. This change may last for one or several days at the onset of the treatments. As they are continued, usually weekly at the onset, this period of relief gradually increases until the patient will remain free of symptoms from one visit to the next. Six to ten treatments usually are sufficient to bring this about. As the condition improves the treatments are given bi-monthly and later increased to monthly intervals. Headache which is one of the most common symptoms gradually lessens in severity and frequency and often disappears. The improvement may be attended with remissions which are frequently the results of "colds" to which these patients are prone.

The changes are definite and often quite marked. Dry membranes, occasionally showing an accumulation of tenacious mucus in the posterior nares and naso-pharynx would undergo improvement. Edematous and even polypoid tissue would show satisfactory changes. Many of the cases that remained under observation for a period of years showed this improvement to persist without remission or symptoms other than one would expect to find in the average individual who had no previous difficulty. Usually these patients will remain comparatively free from colds once the condition has cleared up.

The results were most satisfactory with infection of the ethmoid, frontal and sphenoid sinuses. Where the maxillary sinus was also found to be involved the progress was less satisfactory. This sinus usually shows greater pathological changes

because of the difficulty in drainage due to the unfavorable location of the ostium. In the normal sinus the cilia will carry any foreign matter up to the ostium which opens into the middle meatus. When this defensive mechanism becomes impaired a stubborn infection may result. In those cases in which the antrum showed definite pathology, a large opening was made with a rasp under the inferior turbinate to aid in the drainage and aeration of the sinus. Conservative treatment that is designed to aid nature will in most cases cause a regeneration of the mucosa despite infection. This fact was demonstrated by Knowlton and McGregor² in their experiments. The restoration or stimulation of the mucous glands is a matter of considerable importance because the mucosa is the greatest safeguard against bacterial invasion.

Linton³ claims that the factors of greatest importance in the struggle of the mucosa against invasion are mucus secretion, ciliary action and phagocytosis. Mucus secretion is necessary for the surface activity of both cilia and phagocytes. Ciliary action keeps the viscous film of mucus moving towards the pharynx, thus dooming to destruction all but a very small portion of potential infections. Phagocytic activity is thus confined largely to those cases where the function of the mucociliary layer has failed. Anything that would tend to lessen ciliary activity or alter the nature of the mucous secretion would naturally be conducive to bacterial invasion.

A bacteriological study of the nose was made to determine the changes that took place as a result of treatment. This work was carried out by Mr. Edgar J. Staff of the bacteriology department over a period of two years, during which time 450 cultures were taken. Cultures were made on blood agar plates before and after treatment. To avoid the possibility of contamination only two applicators sterilized in individual test tubes were used. The vestibule was carefully cleaned with a bichloride of mercury solution and a nasal speculum with wide, square flanges was used. A series of treatments were given as controls, where the diathermy was used only on one side with the tampons alone on the other side. This series was conducted to determine the amount of reduction in bacteria that would occur from the mechanical effect of the tampon and the action of the colloidal silver, as compared with the action of the diathermy.

The results were as follows: It was found that the action of the diathermy resulted in a reduction of the organisms from 70 to 80% as compared with a reduction of 15 to 30% without its use. Three sets of cultures were taken, one from the septum, one from the middle meatus and one from the superior meatus at different times. The greatest reduction in the number of organisms occurred in the first series which ranged from 80% reduction to sterile cultures. The cultures taken from the superior meatus showed a reduction of from 70 to 90%. With the cultures taken from the middle meatus considerable variation occurred. In many instances the organisms were far more numerous after treatment than prior. This was explained by the fact that the treatment resulted in a shrinking of the turbinates with greater drainage from the ethmoid cells and from the maxillary sinus. As the treatments progressed, however, cultures taken from this region also showed a reduction in the organisms found both before and after treatment. These changes coincided with the clinical improvement. The staphylococcus albus predominated in the cultures taken, occurring in 84.5% of the cases. The staphylococcus aureus were next in frequency, being found in 57% of all cultures. Contrary to the prevalent idea, the fact has been recently established that the staphylococci also produce an exotoxin. The diphtheroids, which are ordinarily considered to be present 98 to 100%, were present only in 26.5%. As time went on the staphylococci and streptococci diminished in number with the appearance and proportionate increase of bacilli, diphtheroids, micrococcus catarrhalis, yeasts, spore forming bacilli, and other of the common inhabitants of the nose. Although the staphylococci predominated in the largest number of cultures, the patients with streptococcic infections were the ones that showed the most clinical symptoms, both local and general. These were nasal obstruction, discharge, headache, lassitude. Despite the fact that these organisms were more virulent in the reactions they caused, their resistance to treatment was no greater than was shown by most of the other forms. After a series of treatments these bacteria would disappear from the nose. In some cases they reappeared in cultures taken months afterwards when the patient was no longer under treatment but they produced no clinical symptoms.

Four bacteriological case records are given:

Mr. S. S.

Diagnosis: Chronic Ethmoiditis, 4 years duration

<i>"A" Cultures</i>	<i>"B" Cultures</i>	<i>Cultures from</i>
April 12, 1934 400 Strep. Viridans—pure culture	Approx. 75 col. Strep. Vir.	Middle Meatus
May 2, 1934 200 Strep. Viridans 60 Staph. Albus	Heavy growth Strep. Vir. 20 Staph. Albus	Middle Meatus
May 24, 1934 40 Staph. Albus 20 non-Hemol. Strep.	Heavy growth Strep. Vir. 2 Staph. Albus	Middle Meatus
June 16, 1934 Very heavy growth Strep. Vir. Staph. Albus and M. Catarrhalis	10 Staph. Albus 40 M. Catarrhalis—2 Diphth.	Middle Meatus
July 9, 1934 150 Strep. Viridans Heavy growth Albus Few col. M. Catarrhalis	20 Staph. Albus 2 Strep. Viridans	Middle Meatus
August 15, 1934 100 M. Catarrhalis 30 Staph. Albus Few Diphtheroids	6 Staph. Albus 3 Diphtheroids 30 M. Catarrhalis	Middle Meatus
September 20, 1934 6 Staph. Aureus 50 M. Catarrhalis	9 Staph. Aureus 20 M. Catarrhalis	Middle Meatus
October 4, 1934 Heavy growth of Staph. Albus and Aureus	4 Staph. Albus	Superior Meatus
November 25, 1934 27 Strep. Viridans	Sterile	Septum
February 2, 1935 Very heavy growth of Strep. Vir. 1 Pharyngis Siccus 3 Moulds	75 Strep. Viridans	Middle Meatus

Last two cultures showed a reappearance of Strep. Viridans
but with no clinical ill-effects.

Mr. M. C.

Diagnosis: Chronic Rhinitis

<i>"A" Cultures</i>	<i>"B" Cultures</i>	<i>Cultures from</i>
April 12, 1934 600-700 Staph. Albus 200-300 non-Hemol. Strep.	200 Staph. Albus 100 non-Hemol. Strep.	Middle Meatus
May 14, 1934 22 Staph. Albus (3 Hemolytic)	20 Staph. Albus (7 Hemol.)	Superior Meatus
June 19, 1934 30 Staph. Albus 100 Diphtheroids 40 M. Catarrhalis 4 Staph. Aureus	10 Staph. Albus 10 Diphtheroids 8 Staph. Aureus	Middle Meatus
July 18, 1934 4 Staph. Albus 2 Fungi	2 Staph. Albus 6 Fungi	Septum
October 12, 1934 15 Diphtheroids 6 M. Catarrhalis	12 Diphtheroids	Middle Meatus
December 21, 1934 10 Diphtheroids 40 Staph. Albus 8 M. Catarrhalis	70 Staph. Albus 20 M. Catarrhalis	Middle Meatus

Miss V. H.

Diagnosis: Chronic Sinusitis—Ethmoid and Max.

<i>"A" Cultures</i>	<i>"B" Cultures</i>	<i>Cultures from</i>
April 14, 1934 Heavy growth of Hemol. Sta. Aureus and Strep. Viridans	No apparent reduction	Middle Meatus
May 8, 1934 300 Hemol. Staph. Aureus (+ +) 40 Diphtheroids	30 Hemol. Staph. Aureus (+ +) 12 Diphtheroids	Middle Meatus
June 4, 1934 30 Hemol. Staph. Aureus No Diphtheroids	200 Hemol. Staph. Aureus A few Diphtheroids	Middle Meatus

July 12, 1934		
40 Hemol. Staph.	30 Hemol. Staph.	Middle Meatus
20 non-Hemol. Staph.	4 non-Hemol. Staph.	
August 11, 1934		
7 Hemol. Staph. Aureus	18 Hemol. Staph.	Middle Meatus
10 non-Hemol. Staph. Aureus	3 non-Hemol. Staph. Aur.	
3 Diphtheroids		
September 13, 1934		
6 Hemol. Staph. Aureus (+ + + +)	200 Hemol. Staph. Aureus	Middle Meatus
(unusually wide zone)	(+ + + +) wide zone	
1 Sarcina	(Pt. had a bad cold)	
December 28, 1934		
25 Barred Diphtheroids	60 Diphtheroids	Middle Meatus
15 Large Gram-Negative Baccilli	8 Staph. Aureus	
10 Staph. Aureus		
February 2, 1935		
40 Diphtheroids	30 Diphtheroids	Middle Meatus
12 Gram-Negative Baccilli		

MR. C.

Diagnosis: Chronic Hypertrophic Rhin.

"A" Cultures	"B" Cultures	Cultures from
April 17, 1934		
Moderate growth of Hemol. Staph. Aureus and non-Hemol. Strep.	Heavy growth of Staph. Aureus. No Strep.	Middle Meatus
May 29, 1934		
Heavy growth of Diphtheroids and Staph. Aureus	About 300% increase Moderate growth of Diphtheroids and Staph. Aureus 20 non-Hemol. Strep.	Middle Meatus
June 12, 1934		
Very heavy growth of S. Aureus	Reduced to 25% of "A"	Middle Meatus
July 7, 1934		
Very heavy growth of Diphtheroids and Staph. Albus Scattered Staph. Aureus + Hemol.	40 Diphtheroids 8 Staphylococcus Albus	Septum
August 26, 1934		
140 Staphylococcus Albus — Hemol. Heavy growth of Diphtheroids	75 Diphtheroids 3 M. Catarrhalis	Middle Meatus
October 14, 1934		
12 Gram-Negative Bacilli 100 Diphtheroids	20 Diphtheroids	Middle Meatus
December 12, 1934		
160 Staph. Albus 4 Diphtheroids	50 Staph. Albus 2 Gram-Negative Bacilli	Septum
Cultures taken from Septum	80% reduction to sterile cultures	
Cultures taken from Middle Meatus	Variable	
Cultures taken from Superior Meatus	About 70% reduction	

In studying the available literature to obtain a list of the organisms normally found in the nose, to serve as a means of comparison with the cultures we obtained, it was found that very little work had been done in tabulating them. Dr. Hans Zinnser⁴ of the Harvard Medical School referred the authors to Neumann's tabulation of 1902. Shibley, Hanger & Dochez in 1926 carried out studies of the normal nasal bacterial flora at Columbia University and the Presbyterian Hospital, New York, and found that the percentage of staphylococcus was 92% and diphtheroids 79%, with others varying from 36% downward. Two years later in 1928, Noble, Fisher, & Brainard⁵ in the Bacteriological Laboratory of the Medical Division, Metropolitan Life Insurance Company, took serial cultures from

the nose well back through the middle meatus. Few colonies were obtained, usually 80 to 100% staphylococcus albus, less frequently diphtheroids. Our percentage of findings of the staphylococci and diphtheroids were somewhat lower than that of these investigators, but we also found that they predominated. Küster,⁶ Jena, 1929, who summarized the work on this subject, has concluded that we cannot speak of characteristic nasal flora, but feels that any organisms with which a man may come in contact through the air, with the exception of diphtheroids, may be transient in the nose. The majority of organisms 3/4 to 4/5 are filtered out in the vestibule. The sinuses themselves are ordinarily considered to be sterile. Any bacteria that may enter are swept out again through the ostium

by the action of the cilia unless some pathological condition exists which renders their growth favorable.

A number of the cultures studied showed the staphylococcus albus, usually considered of low virulence as compared with staphylococcus aureus, exhibiting clear hemolytic zones of unusual dimensions, sometimes attaining a diameter of one centimeter or more. We believe that this was probably an indication of the increased virulence of the organism. In the routine nose cultures taken at the State Laboratories, hemolytic staphylococcus albus colonies have been encountered but rarely. The media employed was blood agar plates. When this investigation was first begun, various kinds of media were utilized, but it was eventually found more practical to carry out the initial culturing on blood agar plates, which were incubated as promptly as possible and examined at the end of 24 to 48 hours.

SHIBLEY, HANGER & DOCHEZ 1926

THE BACTERIA PRESENT IN THE NOSES OF NORMAL INDIVIDUALS

Staphylococcus Albus	92.0%
Staphylococcus Aureus	36
Diphtheroids	79
Staphylococcus Citreus	10
Hemolytic Streptococcus	0.4
Non-Hemol. Streptococcus .....	.7
Gram-Negative Cocci .....	.1

ZINSSER & BAYNE-JONES 1934

THE BACTERIAL FLORA IN THE NOSE AND ACCESSORY SINUSES

Neumann in 1902 Studied the Nasal Secretions of
Over 200 People, 111 Supposedly Normal

Pseudodiphtheria (probably including Diphtheroids)	98-100%
Staphylococcus Albus	98
Staphylococcus Aureus	30
Streptococcus Lancellatus (probably Pneumococcus)	4
Friedlanders Bacilli	6
Micrococcus Citreus	12
Colon Bacilli	12
Streptococcus	2
Moulds	20
Sarcinae	4
Lactis Aerogenes	4
Yeasts	2

"A" CULTURES*

TAKEN FROM THE NOSE BEFORE TREATMENT

Staphylococcus Albus	69.5%
Staphylococcus Aureus	37
Hemolytic Staph. Albus	15
Hemolytic Staph. Aureus	20
Streptococcus Viridans	12.5
Hemolytic Streptococcus	4.5
Non-Hemol. Streptococcus	16
Diphtheroids	27
M. Catarrhalis	12.5
Pneumococci	9

Gram-Negative Bacilli	12.5
Gram-Positive Bacilli	5.5
Pfeiffer's Bacilli (Influenza Bac.)	5.5
Diphtheria Bacilli	1.5
Sarcina .....	.5
Yeast	1.5
M. Tetragenous .....	.5
Staphylococcus Citreus	1
Pharyngis Siccus .....	.5
Moulds	3

"B" CULTURES*

TAKEN FROM THE NOSE AFTER TREATMENT

Staphylococcus Albus	48.5%
Staphylococcus Aureus	26.5
Hemolytic Staph. Albus	8
Hemolytic Staph. Aureus	11.5
Streptococcus Viridans	11
Hemolytic Streptococcus	5
Non-Hemolytic Strep.	9.5
Diphtheroids	21
M. Catarrhalis	6
Pneumococcus	1.5
Gram-Negative Bacilli	6.5
Gram-Positive Bacilli	3.5
Pfeiffer's Bacilli (Influenza Bac.)	4.5
Diphtheria Bacilli	0
Sarcina	0
Yeast	0
M. Tetragenous	0
Staphylococcus Citreus	0
Pharyngis Siccus	0
Moulds	1
STERILE CULTURES	8%

*Results Obtained from an Average of 200 Cultures

Probably a higher percentage of pneumococci would have been found if mouse inoculation could have been employed on each culture. No anaërobic culturing was attempted as it was not considered practical for this paper. A few gram negative bacteria were further identified as to species in order to show that some intestinal species are present in the nasal cultures.

Regarding the temperatures at which nasal organisms are killed, no definite figures were given, though some work had been done by Carpenter, Boak and Associates,⁷ to determine the thermal death times within the range of 39°C. to 42°C. Practically all of the organisms commonly found in the nose belong to the mesophilic group which are killed after 10 to 30 minutes exposure to temperatures ranging from 113°F. to 131°F. The temperatures reached with diathermy treatments were beyond this range. Many of the bacteria were either killed or markedly attenuated. In this study we find, as have others, that the staphylococcus is the most highly resistant of the common non-spore forming pathogenic organisms. Streptococcus viridans also proved to be very resistant and the pneumococcus least resistant. According to the lit-

erature there does not seem to be much difference in the temperatures at which bacteria are killed, *in vitro* or *in vivo*.

It has been determined⁸ that the great majority of normal organisms can be destroyed at a temperature of 140°F. (60°C.) over a period of 30 minutes. In general, however, it has been assumed that the temperature range for the development of any microbic organism does not generally exceed about 86 to 104°F. (30-40°C.). Thus the majority of organisms will grow in about the range from 46.4-59°F. (8-15°C.) up to 104-122°F. (40-50°C.).

It is not necessary for the intra nasal temperature to be brought up to the so-called "death point" to bring about the destruction of the pathological organisms present. If the temperature can be brought up to a point sufficient to inhibit their activities the normal defense mechanism of the nasal mucosa—the mucus, ciliary action and phagocytosis—will in time eliminate them. The dragging effect also plays an important part. According to Hilding⁹ the dragging effect on the layer of mucus is so great that the cilia about the middle of the nose can clean the preturbinal areas, where no cilia exist, by tugging back the mucus layer.

In order to determine the degree of temperature in the nose resulting from the use of diathermy a special thermometer was constructed. This, however, proved to be unsatisfactory due to its bulk. Through the co-operation of the Leeds & Northrup Company of Philadelphia, a special thermocouple was devised to be used with their potentiometer No. 8863. This thermocouple consisted of a junction at the end of iron and constantan (a copper-nickel alloy) No. 30 silk enamelled wire. The wire

was welded together in the form of a smooth bead 1 m.m. in diameter. The potentiometer current was checked at frequent intervals and the scale was adjusted at zero to correct any changes in the battery. It was corrected to 0.15°F.

The tampon was prepared by enclosing both the diathermy tape and the potentiometer in the cotton tampon, separating the bead, however, from direct contact with the tape. The extreme scale range of the potentiometer was for 125°F. With this procedure the needle would go to the extreme of the scale and register in addition from 5 to 9 points on the galvanometer scale, which would be the equivalent of about 135°F. Since this method gave the temperature of the core of the tampon but did not give a true reading of the temperature of the nasal cavity, a change was made in the arrangement of the thermocouple. Instead of being enclosed with the diathermy ribbon, the thermocouple was joined to the outside of the tampon with a wisp of cotton, leaving the bead free in the middle meatus. It was thus possible to secure a reading of the temperature obtained in the nose that was fairly accurate. Before this procedure was carried out the temperature reading on the potentiometer scale was noted (i.e., room temperature). As the tampon and thermocouple were inserted into the nose, the needle would rise as a result of the intra-nasal warmth. The rise was rapid at the onset, increasing more gradually as the reading approached the nasal temperature. At the end of 5 minutes an average temperature of 95.5°F. would be recorded ranging from 92.6° to 97.4°F. which would occasionally be reached, particularly in acute infections. The potentiometer was adjusted with the scale at zero before each patient was treated to minimize the percentage of error.

Treatment was begun at 250 m.a. and increased gradually until a comfortable sensation of warmth was obtained without discomfort. The average patient would tolerate about 400 to 450 m.a. readily and which usually could be increased to 500 m.a. The differences in the current were due to the differences in the patients' tolerance as well as to the thickness of the tampon and the amount of solution with which it was impregnated. These were variable factors, but only within a narrow limit. When the maximum temperature was obtained, increasing the current would only result in a sense of discomfort to the patient without any material increase in temperature as noted on the potentiometer. As the solution would be absorbed at the



POTENTIOMETER No. 8863

was coated for about six inches from the junction with Schenectady varnish and bound together in a silk jacket. To prevent the fine wire causing injury or puncturing the nasal membrane, the junction

end of about ten or twelve minutes the temperature would slowly begin to recede.

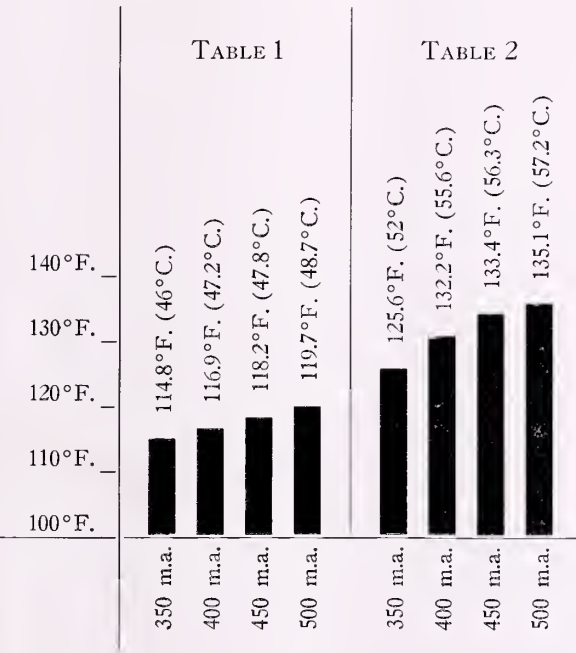
The temperature readings of a large number of cases were taken and averaged as follows:

TABLE 1		
350 m.a.	114.8°F.	46.0°C.
400 m.a.	116.9°F.	47.2°C.
450 m.a.	118.2°F.	47.8°C.
500 m.a.	119.7°F.	48.7°C.

(These readings were taken with the thermocouple outside of the tampon.)

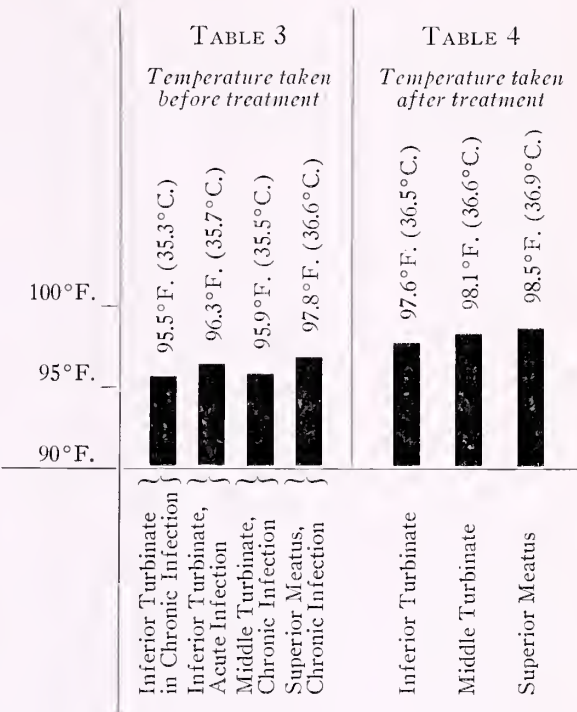
The temperature readings of the series with the thermocouple enclosed in the tampon together with the diathermy tape were as follows:

TABLE 2		
350 m.a.	125.6°F.	52.0°C.
400 m.a.	132.2°F.	55.6°C.
450 m.a.	133.4°F.	56.3°C.
500 m.a.	135.1°F.	57.2°C.



The nasal temperature of about 50 patients was taken, averaged and tabulated in this manner:

Average Temperature	
Inferior Turbinate:	
In Chronic Infections	95.5°F. (35.3°C.)
In Acute Infections	96.3°F. (35.7°C.)
Middle Turbinate	95.9°F. (35.5°C.)
Superior Meatus	97.8°F. (36.6°C.)
The Temperature Taken Immediately After Treatment	
Inferior Turbinate	97.6°F. (36.5°C.)
Middle Turbinate	98.1°F. (36.6°C.)
Superior Meatus	98.5°F. (36.9°C.)



These figures were subject to wide variations, at times as much as a degree or more due in part to the very small surface of the thermocouple (1 m.m.) in contact with the mucosa. The above figures are the result of a general average of the entire series. Variations were found in the temperatures taken of the same patient in both nostrils, varying as much as a degree. The temperatures likewise were inconstant and would vary at different times. Also those with acute infections would show a higher reading.

These results vary from the reports of previous investigators. A difference was noted in the temperatures of the inferior and middle turbinates which was not in accordance with the findings of M. Krukower.¹⁰ The average temperatures were higher than those determined by A. J. Cone.¹¹ He found the average normal temperature of the inferior turbinate to be 89.6°F. Both men used different methods in determining these findings.

A rapid loss in the temperature of the inferior turbinate was noticed after the treatment. When the tampon was removed and the temperature taken immediately it would register one temperature and as the reading was being taken would drop from .5° to as much as an entire degree within a few seconds. This was attributed to the fact that the rich blood supply of the inferior turbinate carried off and distributed the excess heat with great rapidity.

The fineness of the thermocouple made it possible to secure readily temperature readings from the different areas of the nose, but also made some fluctuation inevitable. Having the patient hold his breath during the period the readings were taken helped but did not entirely eliminate the fluctuations.

Name of Patient	Mr. Wm. B. ———
History	Subject to frequent head colds. T&A 2 years ago.
Diagnosis	Chronic Rhinitis.
Symptoms	Feeling of fullness in the head. Lassitude. Difficulty in breathing. Post-nasal discharge. Digestive disturbances.
Examination	Septum deviated to the left coming in contact with middle turbinate. Hyperplasia of mucous membrane, more marked on left side.
Temp. before inserting tampon (room temp.)	74.5°F. (23.6°C.)
Temp. after inserting tampon (nasal temp.)	96.2°F. (35.6°C.)
Inferior Turbinate	95.2°F. (Temperatures
Middle Turbinate	95.8°F. taken before
Superior Meatus	97.5°F. treatment)
Temp. during Rx.	
350 m.a.	113.6°F.
400 m.a.	116.3°F.
450 m.a.	119.5°F.
500 m.a.	119.7°F.
Range of Comfort	450 m.a.
Temp. following Rx.	
Inferior Turbinate	97.1°F.
Middle Turbinate	98.4°F.
Superior Meatus	98.6°F.
The heat is retained in the tampons after treatment	8 minutes.
Remarks	Copious discharge for several hours after treatment.

The above chart is illustrative of the routine examination that was carried out, particularly in reference to the potentiometer readings. Upon bringing the diathermy to a point of comfortable heat, increasing the current did not bring about a corresponding rise in temperature. As noted on the chart the difference in temperature from 450 m.a. to 500 m.a. was only .2° F. and caused a sense of discomfort to the patient.

The most common symptom was post-nasal discharge and hawking; headache, nasal obstruction, lassitude, dullness, and a feeling of heaviness of the eyes. Occasionally no symptoms were complained of and the condition discovered only in the course of routine examination. The patient considered them relatively unimportant or not sufficiently annoying to be given attention. Hawking and spitting, particularly in the morning, would be taken as a matter of course. Many of the cases showed little apparent pathology, yet after the treatments a mucoid or mucopurulent secretion would occasionally be found in the middle meatus and these cases would in time be followed by clinical improvement.

The purpose of the treatment is directed to re-establishing the normal conditions of the nose by

improved aeration, drainage and ventilation; by stimulating the secretion of the glands situated in the mucosa, which possess a decided inhibitory power to the further growth of the invading organisms. Thus, although we may find similar bacteria reappearing in cultures taken a year or so later, they seem to produce no clinical symptoms apparently because the recovery of the mucosa is capable of withstanding the effect of the toxins they produce, or because the virulence of these organisms had become attenuated, or probably the result of both.

The relation of chronic sinus infection to respiratory infections and allergic conditions is becoming more significant. In a series of 170 Hay Fever and Asthma¹² cases examined, 142 or 84% showed some demonstrable nasal pathology. The use of diathermy in the treatment of these cases brought about favorable results and established this form of treatment as a valuable adjunct in the treatment of Asthma.

A common complication of chronic nasal or sinus infections had been gastro-intestinal disorders. One who has seen and treated a number of these rhinological conditions could not fail to be impressed with the frequency with which gastro-intestinal symptoms are found. Nevertheless this condition appears to have attracted very little attention. On several occasions patients have been subjected to extensive gastro-intestinal studies when a nose and throat examination would have revealed the cause. "Heart-burn" and gas eructations that patients frequently complain of are apparently due to the action of the mucopurulent discharge upon the gastric secretions. There may be little or no antero-nasal discharge and often the patient is entirely unaware of the profuse post-nasal discharge that is present. He develops the habit of hawking and spitting or of swallowing it when the former is not convenient until it becomes entirely automatic. This habit is not an uncommon one among middle-aged individuals who accept it as a matter of course. Occasionally large gobs of yellowish or brown mucus may be found on the pharyngeal wall. On questioning, the patient will usually confess to an offensive odor from his mouth in the morning. In atrophic conditions where considerable crusting is also present it is not uncommon for the patient to lose his breakfast at times. Another symptom that occurs frequently is a dry morning cough which is invariably due to local irritation resulting from the accumulation on the pharyngeal wall.

While it is obviously impossible to expect sinuses with chronic infection of long standing, showing marked fibrosis, glandular degeneration of the epithelium, or a chronic periostitis, to return to normal, nevertheless it may be possible to secure sufficient improvement with amelioration of symptoms to justify the use of conservative measures. The local treatment should be augmented with a carefully regulated diet, correction of faulty habits as excessive smoking, prolonged confinement in overheated and poorly ventilated rooms, and general medical care. Radical surgery should be resorted to only when such measures fail or where there are extensive areas of diseased bone, or marked cystic degeneration, or where the health of the patient requires early surgical intervention. In these cases the external operation is probably the most satisfactory method of reaching all of the cells involved under direct view.

From the work carried out these conclusions were drawn:

1. That diathermy is beneficial by producing an active hyperemia which increases the absorption of the silver protein, and in accelerating repair processes.

2. That the silver protein will penetrate injured epithelium to a greater degree than the normal intact mucosa.

3. That a comparatively weak solution (7%) is as effective as the 20 to 40% silver protein solutions commonly in use without producing the local irritation that the stronger solutions may cause.

4. That the intra-nasal temperature can be raised to a sufficient degree to attenuate or destroy many of the surface organisms without causing discomfort or injury to the tissues of the host.

5. That the condition of the mucosa is improved, enabling the normal defense mechanism of the nose to function more effectively against invading organisms.

6. That the type of the organisms undergoes change as the infection subsides.

7. That the intra-nasal temperature was higher in the presence of acute infections.

8. That clinical amelioration can be effected in many of the nasal infections, and cure in some, without the necessity of surgical intervention that would necessarily entail the loss of some essential structure.

9. That gastro-intestinal disorders are a common complication of chronic nasal or sinus infections.

10. That nasal and sinus mucosa regenerate well despite infection.

* * *

The authors wish to express thanks to Lester A. Rounds, Ph.D., Director of the Rhode Island Public Health Commission, for his co-operation and that of his department. All of the cultures and pathology work was carried out in the State Laboratory.

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EDITORIALS

JOHN W. KEEFE

In the death of Dr. John W. Keefe the medical profession of Rhode Island lost one of its most distinguished members. He was one of a group of surgeons who developed the field of surgery in this state after the introduction of Aseptic Surgery. Other members of his group were Gardiner, Collins, Hersey, and Godding. He was particularly fond of Dr. Gardiner with whom he was more or less associated in the early years of his practice.

Dr. Keefe was younger than the members of

this group and early determined to make surgery his specialty.

He was progressive in his methods and belonged to the national and New England surgical groups in the activities of which he was a leading member. He kept in touch with the progress of surgery also by frequently visiting surgical clinics both in this country and abroad.

He was frequently introducing new technique and operative and post-operative procedures. He was a member of the surgical staff of the local hospitals but the greater part of his time was devoted to the surgical services at the Rhode Island Hospital where he was a moving spirit in the surgical department for many years.

At the height of his career he was the most active surgeon in the state. He was a good surgeon, widely known and successful financially. He was industrious and active and helped several surgeons and physicians to get established in their early days of practice.

Dr. John Keefe will be remembered as a very successful surgeon whose energy and skill added a new scientific impetus to surgical work as practiced by somewhat older surgeons who were practicing at the time when aseptic surgery was first introduced.

PRESCHOOL CHILD WELFARE AND SCHOOL HEALTH EXAMINATIONS

Lately there has been an increased interest in the effectiveness of the different child welfare activities, and also in the question of which services and how much of them should be furnished free. There is no question of course that in the past the "Child Health" activities have been of great value both directly and in educating the community. In view of differing opinions as to how far and in what direction these activities should be carried, a progress report of a committee of the American Academy of Pediatrics is timely.

This report recommends that the state or district medical societies through a public health committee should provide a program whereby more children of all economic levels would receive physical examinations, immunizations and general preventive care especially up to the school age. The assumption is that in most communities the indigent will be seen in clinics and all others by their own physicians. The problem is chiefly one of arousing the interest of the physicians and the public.

Another item in the report is a suggestion rather than a definite recommendation that school examinations be reduced in scope to inspections. The argument is that school examinations cannot and should not be complete enough and careful enough to constitute a health examination, that they are second rate in efficiency and poor as health education.

The question of the proper type of school examinations is not one on which it is possible to give a quick judgment. About the importance of increasing preschool health work by private physicians there can be no difference of opinion.

DOCTOR

To be called Doctor was once of much more significance and title of which a physician could well be proud. Nowadays the title is given to members of so many cults and to so many persons who have been given a doctorate in some branch of learning that the significance of the title has lost its original meaning, for it was originally used almost entirely in addressing a physician. The name has been cheapened and has lost its true meaning and dignity.

No branch of learning of course has any copyright on the term doctor. Educational institutions give degrees of doctor in many branches of science and learning. It is too late and not feasible to restrict the title to physicians alone. It will continue to be used in conversation to indicate special education in several legitimate fields of knowledge.

However, when the abbreviation Dr. is put on an office sign before the name of persons who are practicing some of the professions, so called, which can hardly be compared with the profession of medicine there is real cause to complain. Such practitioners are masquerading under a title long ago made dignified and significant in the eyes of the public.

Some of the irregular practitioners are doing this in the city and state, and the state health authorities have not been able to get any backing from the attorney general to stop it. Legally there is, probably, no way to stop it. The most that can be done, perhaps, is to make such men put their degree after the name. Even this might entail much legal bickering.

It might be that physicians themselves might prevent such irregular practitioners from masquerading as regular physicians by voluntarily dropping the title Dr. on their office signs and appending only the degree M.D. At any rate it would seem that it was a matter that the State Medical Society might well take under consideration.

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William P. Buffum, Monday evening, June 3, 1935, at 8:50 o'clock. The records of the last meeting were read and approved.

An announcement of the golf tournament to be held June 26 at the Wannamoisett Country Club

was read. The President appointed the following members for the golf committee: Dr. Joseph P. Leone, chairman; Drs. Charles O. Cook, B. H. Buxton, N. A. Bolotow and Richard McCoart.

Dr. Albert W. Rounds read an obituary of Dr. Clifford H. Griffin. It was voted to spread this on the records and send a copy to the family.

The President called attention to the work of the committee on changes in the meeting hall. Members sitting well back thought the acoustics improved by the sound-proofing material on the ceiling; the formerly dingy walls were pleasing with their fresh paint and portraits; the speaker's platform, lowered to a height of about a foot, looked better and was much more convenient; and the upholstered chairs, scientifically arranged in curved ranks, evidently adapted themselves pleasingly to the anatomies of the audience.

The Standing Committee having approved their applications, the following were elected to membership: Richard S. Arlen, Mark A. Yessian, George J. Dwyer, Edward J. West, Bruno G. DeFusco, Mario L. Palmieri, America Del Selva and Walter S. Jones.

The paper of the evening was on "Allergy: Recent Advances in the Management of Asthma and Eczema," by Dr. Francis M. Rackemann of Boston. He gave as his definition of Allergy, "The capacity of certain individuals to react to certain substances harmless to normal individuals." It occurs when they have been sensitized by previous contact. By means of diagrams on the blackboard he demonstrated the normal delayed reactions to serum and the sudden severe abnormal reactions. Although thousands of doses of diphtheria antitoxin are given without accident, we must always be cautious in testing, especially where there is a history of serum disease. He showed charts demonstrating reactions which are always pronounced in character and necessary for diagnosis. A careful history may simplify the diagnosis with accurate noting of the dates of beginning and subsiding of attacks. Besides the extrinsic causes, sinus trouble, emphysema, diet, etc., may make the difficulty, and an increasing number of cases are coming from drugs.

The meeting adjourned at 10 P. M.

Attendance 106.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

RHODE ISLAND MEDICO-LEGAL SOCIETY

The Rhode Island Medico-Legal Society celebrated its 50th Anniversary with a dinner at the Narragansett Hotel on June 27th, 1935. Seventy-eight members and guests were present.

The speakers were: Dr. Fritz W. Gay, President of the Massachusetts Medico-Legal Society; Dr. Timothy Leary, Medical Examiner of Suffolk County, Mass.; Hon. Charles A. Walsh, Associate Justice of the Superior Court of Rhode Island.

The following officers were elected for 1935-36; Benjamin F. Tefft, M.D., President; Sigmund W. Fischer, Jr., Esq., Vice-President; Jacob S. Kelley, M.D., Secretary-Treasurer.

The Anniversary Committee were: Creighton W. Skelton, M.D., Chairman; Henry A. Jones, M.D.; Benjamin F. Tefft, M.D.; Henry D. C. Dubois, Esq.; Henry M. Boss, Esq.

The following committee were appointed to revise the By-Laws and to create a Committee on Grievances: Dr. Creighton W. Skelton, Chairman; Archibald C. Matteson, Esq.; Henry D. C. Dubois, Esq.; Dr. Harry S. Flynn.

THE RHODE ISLAND MEDICAL SOCIETY REPORTS OF COMMITTEES (Continued from August Issue)

REPORT OF COMMITTEE ON PUBLIC HEALTH CLINICS

The Committee on Public Health Clinics submits its second annual report.

During the past year the Committee has directed its attention toward State operated clinics for Child Welfare, Tuberculosis and Mental Diseases. In addition post-graduate courses for physicians were offered during April at the local hospitals. Through the courtesy of the *Journal* a list and description of all courses appeared in the March number. The response was not all that could be hoped for. We profit by experience, however, and the Committee now has other plans.

At a conference with the former Public Health Commission a sub-committee suggested that Child Welfare and Diphtheria Immunization Clinics conducted by the State be limited to the indigent only; and that State Welfare Nurses call on discharged maternity cases only with the knowledge and consent of the family physician; furthermore we suggested that the Diphtheria Immunization work in any suburban locality be done by the State Health Department only with the co-operation of the local medical men of that particular community.

The Public Health Commission, after considering the matter, reported that they would be glad to turn over the work to the profession whenever the profession in turn would evince a willingness and a demonstrated ability to do the work in at least as an efficient manner as the Commission had conducted it.

In response to this, your chairman, with the help of the physicians in Pawtucket, inaugurated a Diphtheria Immunization Campaign. During the month of January a meeting of all local doctors was held at the Memorial Hospital in Pawtucket and plans were made to conduct a campaign during February.

Sixteen different physicians spoke before as many different Parent-Teacher Associations and explained the plan; the *Pawtucket Times* was more than generous in its treatment of the news events connected with the campaign and devoted much space and prominent display to all items. The local theatres, at their own expense, displayed a strip of film between each feature picture advertising the campaign. All clergymen read a letter from the Health Department from the pulpit and urged their congregations to co-operate. The local department stores displayed black and yellow placards furnished by the H. K. Mulford Co., and druggists passed out black and yellow circulars also supplied through the courtesy of the H. K. Mulford Co. Four of the leading drug stores ran advertisements in the paper over their name, calling attention to the Diphtheria Immunization Campaign. The School Department sent home mimeographed notices by the school children. A list of physicians co-operating was published twice a week on the second page of the paper and announced that they would be in their offices from 10:00 to 11:30 A. M. Wednesday and Saturday mornings for immunization work only. All physicians in the city co-operated in the plan except those who limited their practise to a specialty. For those who could afford it a fee of \$1.00 was charged for each injection. No one was refused treatment and for those on public aid lists the City Health Department furnished toxoid free.

At the conclusion of the campaign the *Pawtucket Times* ran a full length double column editorial extolling the work and urging physicians to continue working along similar lines in disease prevention.

A total of 1,394 children were immunized in eight sessions which is remarkable inasmuch as the

last report of the State Public Health Commission states that 2,023 were immunized by the State clinic in the entire year. This proves that well directed disease prevention measures in the hands of local medical men will easily and much more rapidly control the spread of communicable diseases than the slower and more impersonal method formerly employed by the State Health Department.

If the medical men in any given community will unite in such a project it will:

1. Dramatize their relationship to the health of the community.
2. Emphasize the "family-physician" relationship.
3. Eliminate the "clinic problem."
4. Advance the health of the community more rationally and more expeditiously than the slower process of State clinics with its attendant discordant note of interference with problems which should and could be handled by local physicians.

In the furtherance of the plan to place the medical men in each community responsible for and actively engaged in disease prevention, the Committee has attempted to establish local medical groups, or clubs, whose function it will be to co-operate with this Committee inasmuch as the chairman of the local group will meet with this Committee. In East Providence much has already been accomplished in this regard and plans are under way to conduct a Diphtheria Immunization Campaign in the near future.

Other groups are in formation and your Committee is ready to lend its enthusiasm and support to such movements.

During the year many changes have taken place in our State government. Our contact work with Health and Welfare officials had to be held in abeyance for some time, as a result. At present we have assurances from the heads of the Health and Welfare Departments that they will co-operate to the fullest extent and we confidentially feel that the solution to our problems in that direction is at hand.

The Department of Health has agreed to limit its activities to the indigent and that only those referred by public aid directors or their family physician will be given care or treatment by the department. The problem of the Tuberculosis and Mental Clinics is being satisfactorily handled and arrangements are being made to operate these clinics by local hospitals or by local medical men and in such a manner as to overcome present objections. Conferences have been held with the heads of

departments and institutions involved and the fullest co-operation has been evident. Many matters complained of have already been corrected and more will follow.

As regards the post-graduate courses, your Committee feels that there is a very definite need for such, and is now working on a plan to establish a bureau where any one desirous of taking a short course of instruction in any subject may have courses arranged for him at a nominal fee. The fee is an important consideration because the costs of printing material and advertising runs into considerable money in the course of a year, and the Committee feels that the payment of a small fee insures interest and attention to the courses arranged.

Much of the mimeographed work sent out by the Committee in the past was done through the courtesy of the Rhode Island College of Pharmacy and some assistance was also rendered by the Pawtucket Mental Hygiene Clinic.

The Committee has not yet completed its investigation of all Public Health Clinics, but expects to do so in the next few months—after which time it will formulate and submit the basic principles it considers necessary for a clinic to have the approval of this Society. The Committee again wishes to emphasize the splendid spirit of co-operation evinced by all officials and clinics contacted and it is quite optimistic regarding our ability to find a satisfactory solution to our problems. It is not possible in the space of this report to give a detailed record of our activities, but rather an attempt has been made to summarize our results and report our progress.

Respectfully submitted,

CHARLES L. FARRELL, M.D.,
Chairman

It was voted to accept the report, and continue the committee.

ANNUAL REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS AND LEGISLATION

The Committee on Medical Economics and Legislation held five meetings this year.

The Committee actively investigated all legislation affecting public health and the medical profession.

Joint meetings with representatives of the hospitals, the nursing organizations, public health organizations, Homeopathic Society and the Osteopathic Society were held at the Medical Library in an

effort to correlate the various points of view and to formulate a program satisfactory to all concerned.

The Committee also contacted the Rhode Island Pharmaceutical Association and the Director of Public Health as well as members of the House and Senate Committees on Judiciary.

Members of the Committee appeared before both House and Senate Judiciary Committees and urged passage of the Basic Science Law and the Physicians' Lien Act. They also opposed bills extending further privileges to osteopaths; the creation of a Naturopathic Board and the establishment of a public health nurse consultant in the Division of Health.

All meetings were well attended and the individual members worked zealously in an effort to obtain our objectives.

The following bills were considered:

H-585 provided for the appointment of a nurse consultant in Department of Public Health to stimulate and guide the development of public health nursing in cities, towns and rural areas of the state. She would have clerical assistance and salary not exceeding \$5,200.

The balance of the Act listed the diseases which shall be reported as dangerous to Public Health and provided for a permanent Tuberculosis register. It appropriated \$2,800.00 for the purpose.

This bill was opposed on the basis of privileged legislation and the Committee was of the opinion that all such legislation should emanate from the Director of Public Health.

The bill died in Committee.

Two bills, H-712 and H-714, related to the practise of Osteopathy.

H-714 was badly drawn and was discarded.

H-712 changed the practise of Medicine Act to allow Osteopaths all the rights and privileges now possessed by the regular practitioners of medicine, and further provided that City, Health and School positions be opened to them.

This Bill also removed the restriction against their writing prescriptions.

The bill was opposed by the Committee on the basis that it removed any and all restrictions on Osteopaths and gave them the same standing as regular medical practitioners with qualifications so low that candidates for the practise of medicine with same or similar qualifications are not even allowed to take the examination.

The bill died in Committee.

H-668 amended the general laws to permit the Superintendent of State Institutions to issue burial permits.

Committee took no action on this bill.

H-531, a bill to define Naturopathy and set up an examining board. Although it was claimed that Naturopathy was a drugless healing, the law was phrased to permit the use of powdered herbs and roots.

The Committee opposed this bill on the basis of the danger to public health.

Naturopathic training was proved to be extremely meagre and totally insufficient to allow them to care for the sick.

The bill died in Committee.

H-708, The Basic Science Law set up basic requirements for admission to Examining Boards in the healing art.

The Committee studied the American Medical Association model Basic Science Law and the model act prepared locally by the previous Public Health Commission. It was decided to modify the local act to meet present conditions and to introduce it.

The House Judiciary Committee held a public hearing on the bill which was opposed by representatives of the Chiropractors, Naturopaths and Osteopaths.

Members of the Committee appeared in support of the bill and advanced lengthy arguments in favor of it.

The bill was referred to Director of Public Health by the legislation for his recommendation at the 1936 session.

S-77, an act relating to the registration of nurses, provided for an all nurse Examining Board appointed by the Governor from a dictated list submitted by the nurses. It further provided for an advisory council and it was mandatory on the Governor to appoint the respective presidents of the nursing organization.

The act failed to provide powers and duties for the council. Appointees were not required to be citizens and an out-of-state nurse was to do inspecting at a salary of \$400.00.

Our Committee met with the representatives of the nursing organizations and discussed the bill in detail. It was agreed to lend assistance to the nursing organization in framing any needed legislation, but it was felt that this bill did not suit present conditions.

The bill died in Committee.

S-52, an act providing for the application of a

Lien on any sum awarded an injured person and provides for payment of doctors, dentists, nurses and/or hospitals.

The Committee sponsored this bill and appeared before the Senate Judiciary Committee in support of it. The bill was opposed at the public hearing by representatives of the Bar Association on the grounds that it would make settlement of small claims difficult; it would interfere with the attorney's Lien and make additional paper work.

Members of the Senate Judiciary Committee agreed to make certain corrections and the bill as amended passed the Senate, but died in the jam of legislation in the House on the final day of the session.

S-95, a bill to regulate sale of certain medicines and poisons, was introduced and favored by the druggists.

The Committee studied the bill and approved it. The chairman and secretary of the Committee appeared at the public hearing in support of it, and letters approving it were sent to Rhode Island Pharmaceutical Association as well as Senators on the Committee.

H-599 imposed new duties on the truant officer in the interests of Child Health.

S-160 regulated practise of Dentistry.

S-148 regulated Hair Dressing.

S-188 regulated Barbering.

S-182 related to the separation of Health Department of Providence and Charles V. Chapin Hospital.

H-763, similar bill.

The Committee took no action on the above.

The labor bill containing provisions for compensation of occupational diseases was lost in the final hours of the legislature.

In view of the attempt to license Naturopathy, the Committee has compiled information and statistics regarding Naturopathy which is now on file at the library and will be available for future use in combating the inroads of this cult.

The Committee has also collected catalogues of all the approved schools of Osteopathy as well as some not approved and is in a position to refute the claim of the Osteopaths as to their training in pharmacology.

Respectfully submitted,

JAMES A. McCANN, *Chairman*

CHARLES L. FARRELL, *Secretary*

It was voted to accept the report, and to continue the committee.

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

A dry test for syphilis that can be carried out in the office. Dahr, *Münch. Med. Wchnschr.* 8: 1723, 1934, describes the Chediak test which consists of drying a drop of blood to be examined on a slide, mixing it with the antigen for the Meinicke clarification test, and making a microscopic examination. It is cheap, rapid, simple and reliable and can be done anywhere. It can be used as a rapid first examination but in doubtful cases some of the other serologic tests should be made. (The writer has been doing the Rosenthal test for syphilis in his laboratory for some time. It is apparently accurate and does not require much time; in fact 12 tests can be done in twenty minutes. Naturally it has to be checked with other tests; it is a good test where speed is required. It also helps to eliminate negative sera.—M. W. T.)

* * * *

Examination of the cerebrospinal fluid with the new Meinicke clarification reaction (M. K. R. 11). E. Christiani, *Münch. Med. Wchnschr.* 81: 1660, 1934. The author feels that the test is specific; that the test is the most sensitive in the diagnosis of tabes.

* * * *

The Meinicke reaction (M. T. R.) in colonial practice. S. Golovine, *Presse Med., Paris*, 42: 1624, 1934, believes that this reaction (turbidity test) is so simple that it can be carried out in colonial practice. He states that Meinicke's later clarification tests are much less simple. (While the turbidity test is a little less sensitive its technic can be mastered by anyone and can be carried out at the bedside. Syphilis apparently follows a different course in the colonies; the central system not so often attacked. . . . The writer feels that modern medicine requires much more rapid tests for syphilis. In one case alone the necessary delay while waiting for a more complicated laboratory diagnosis caused a loss of several hundred dollars. In blood transfusions it is imperative to do an immediate test. Also in coma. It is the age of speed and it is sometimes too long to wait the necessary two or three days for a thorough diagnosis. Again, I mention the Rosenthal test as answering most of our requirements for immediate diagnosis. With the Kahn standard antigen and cholesterin solution the mixture will keep for several days. Only a small amount of blood is required and the diagnosis can be made in ten minutes by the microscope. We must have some test of this kind to answer

patients' requirements. It is necessary, however, for treatment, to know how severe the reaction is. Therefore, it would be convenient to have reports as one to four plus on our Wassermans.—M.W.T.)

* * * *

Value of the serologic diagnosis of gonorrhea. Walter, *Dermat. Wchnschr., Leipzig*, 99: 1428, 1934, stresses the value of the complement fixation test for gonorrhea. He states that the reaction remains negative while the gonorrhea is limited to the superficial mucous membrane and becomes positive when the gonococci penetrate the deeper tissues. (Here is a valuable test, quite neglected. In many clinics it is used in differential diagnosis. In fact it is difficult to practice without it. While it is not especially accurate in superficial conditions, it is of value in deep seated conditions, such as pelvic inflammations and arthritis.—M. W. T.)

Blood Iodine in Thyroid Disease. Curtis et al. *The Western Journal of Surgery, Obs., and Gyn., Aug. 1934*, state that the iodine content of human blood can be determined by micromethods. Human blood normally contains about 12 gamma per cent of iodine. This is partly alcohol soluble. The remainder is alcohol insoluble and this fraction is presumably the thyroid hormone. The blood iodine is increased in patients with untreated hyperthyroidism. It is decreased in patients with untreated hypothyroidism to about two-thirds normal. (An accurate diagnosis of thyroid disease consists of basal metabolism estimations—two or three tests on various days if necessary and a blood cholesterol estimation. The blood cholesterol test will help to diagnose certain thyroid disturbances which the basal metabolism test fails to detect. A high cholesterol often indicates myxedema; a low one, toxic goiter; and a normal one, non-toxic goiter. The blood iodine estimation is a valuable addition but it requires considerable technical skill to perform the test.—M. W. T.)

* * * *

Röntgen Therapy in Chronic Sinusitis. Butler and Woolley, Department of Radiology, University of Oregon, in *Radiology* 5: 528, 1935, believe that roentgen therapy has a definite place in the treatment of chronic paranasal sinusitis in properly selected cases. There is no damage to normal structures and failure in no way interferes with subsequent surgery should this become necessary.



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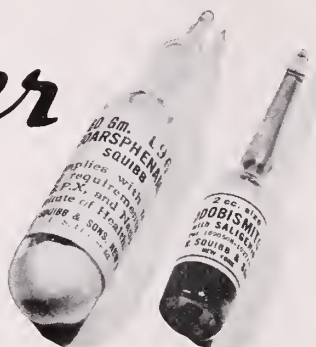
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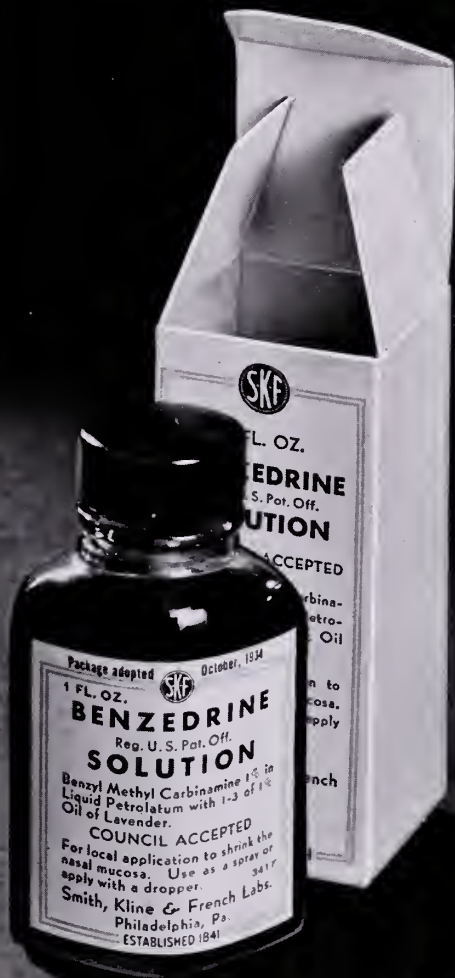
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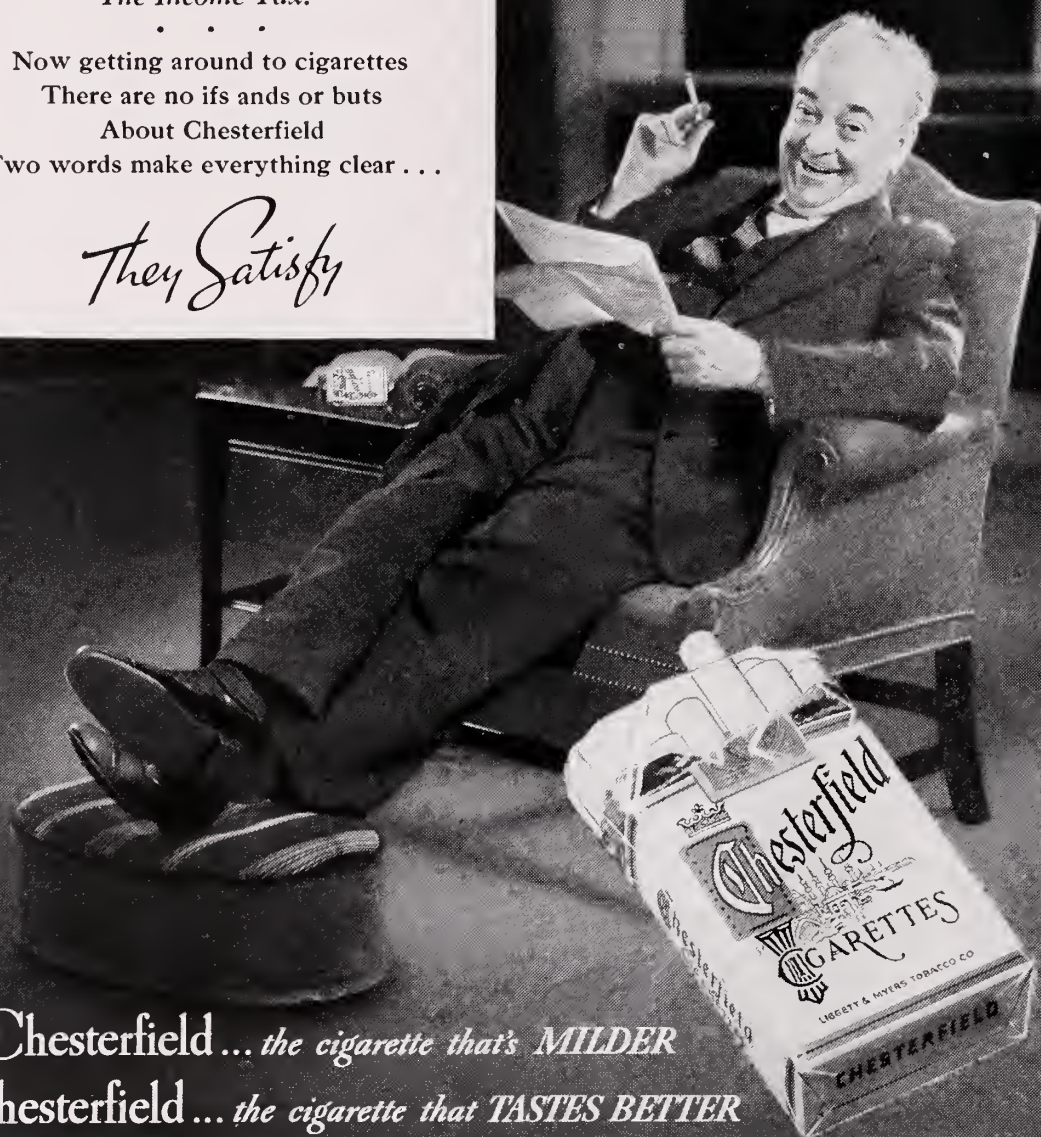
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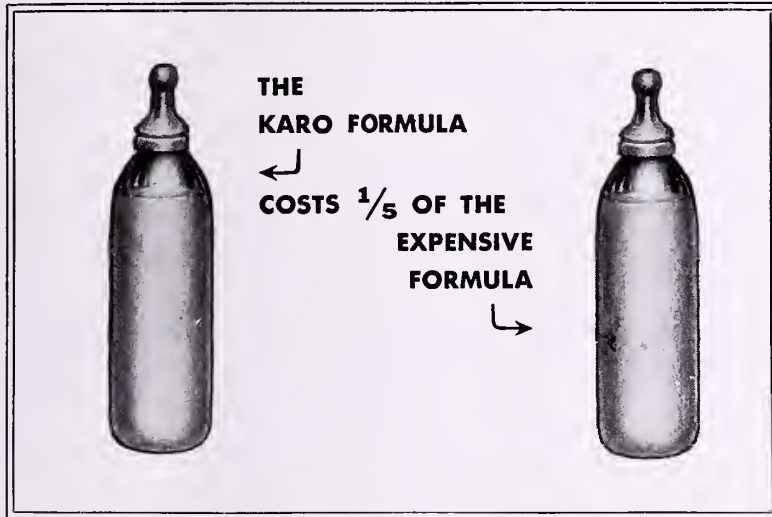
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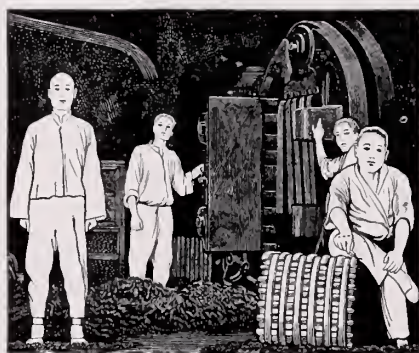
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ORIGINAL ARTICLES

MEDICAL INDICATIONS FOR TRANSFUSION*

By F. H. CHAFEE, M.D.

454 ANGELL STREET, PROVIDENCE, R. I.

The transfusion of blood is not a new procedure. The first instance in American literature was in 1884, by Halstead. He reports an autogenous transfusion for carbon monoxide poisoning, the blood having been defibrinated while without the body. Today, with the improvement in technique, it is a safe procedure, and with most workers causes reactions in less than 15% of the cases. Mortality directly due to the procedure is very rare, indeed.

The indication for transfusion from a medical standpoint is not a clear-cut problem at all. There are many controversial points, and, in the brief time at our disposal this evening, it will be impossible to discuss them thoroughly. So I trust that you will bear with me if some of these points are stated rather sketchily, and it is my hope that further elucidation of these problems may be brought out in discussion afterward. It is my purpose to present no new material, but rather to summarize the literature and to bring to our minds some of the conditions that can be benefited by a transfusion.

We all know that in a case of acute blood loss, a transfusion is a life-saving procedure. The hemorrhage from a typhoid ulcer, hematemesis from carcinoma, hemorrhagic disease of the new-born, all these cases demand blood to preserve life.

In patients with a bleeding duodenal ulcer, there are at present two forms of treatment in common usage. The first—which is commonly employed in this vicinity—is that of ice by mouth, large quantities of morphine, and observation over a period of twenty-four hours or so. Transfusion is given as a last resort. This method results in delayed starting of the Sippy regime. The patient becomes dehydrated from fluid loss, and as a result is restless and uncomfortable. This method is the older of the

two, and dates from the time when transfusions were fraught with danger. It has been replaced in New York, Cleveland, and other teaching centers by the following procedure. Transfusion is performed immediately on a patient who has a blood pressure that is falling, and has dropped below ninety, systolic. If bleeding should recur, transfusion is repeated ad lib. In the meantime, his fluid balance is maintained by hypodermoclyses. We, therefore, have a patient who is getting nothing by mouth, but who is neither restless nor dehydrated, and who is requiring a minimum of morphine. As soon as bleeding is seen to have been definitely checked, the dietary regime is begun. The rationale of this therapy is sound. It is known that, with a severe anemic state, the clot which forms is soft. Intestinal contents may easily dislodge it and renew the hemorrhage. The giving of blood will restore the deficiency of fibrinogen with the result that a better clot will be formed, and the hemorrhage better controlled. The patient thereby can be started on his diet at an earlier date, and he starts it without the handicap of dehydration and anemia that is present in the older form of therapy. In reply to those of you who may feel that transfusion would not stop bleeding so promptly—a case might be briefly quoted. This patient suddenly began to bleed on the tenth day of a previously uncomplicated Sippy regime. He was given three transfusions within the next 36 hours. When he again went into collapse the following day, a diagnosis of pneumonia was made. This was a cause for dispute, and it was with great interest to note at the autopsy that evening, that the artery in the center of the ulcer was firmly clotted. Incidentally, there was no evidence that the pneumonia was embolic in origin.

There are other acute conditions where transfusions can be equally effective. Dana Atchley in his excellent paper describes the syndrome of medical—in contradistinction to surgical—shock. His interest in this condition was aroused by a case in which a patient was bitten in the vein by a rattlesnake, and who was brought into the hospital in severe prostration. Vasomotor paralysis was evident, and the anti-venom serum was not being absorbed. An infusion of saline and dextrose

*Read before the Providence Medical Association April 1st, 1935.

enabled a blood pressure reading to be obtained for the first time. To give the end result, he recovered after a total of 7200 cc. of fluids had been given by vein over a period of 16 hours. This is the first case described in the literature of a man recovering from an intravenous snake bite.

Much of the picture commonly associated with cardiac failure was present in this man, whose treatment would have resulted in certain death if his heart had really been failing. But the mechanism of this prostration could be more easily attributed to the fact that "his vascular bed had suddenly become larger than his blood volume." This condition Atchley has called medical shock. "In most cases it is a simple process of dehydration with the factors clearly related to the primary disease condition, and with the crucial test of therapy eminently successful." The shining example of this form of anhydremic shock is in the vasomotor failure that may occur in diabetic acidosis. Another factor, however, may be introduced, for Hurler and Trevan in 1916 demonstrated that a drop in blood pressure occurred in cats following the injection of acetyl acetone, and Bauer and Richards in 1928 demonstrated in dogs that acetates have a vasodilator effect similar to histamine. From a toxic approach, the problem, then, is not so simple. Yet it is reasonable to believe that there is a capillary paralysis and that this paralysis can occur from toxins of various sorts, including those of a bacterial nature. The significant effect of vasomotor paralysis, however, is its interference with tissue function, by producing circulatory stasis. Renal function is inhibited, nerve cell metabolism is interfered with, and so forth. Atchley refers to several cases of infectious disease where medical shock was a clearcut complication, and in the words of Janeway, he makes a plea for "no symptomatic treatment without adequate physiological concepts." He says, "We must in most cases abandon the idea of cardiac death at the height of acute infectious diseases, such as pneumonia, typhoid fever, 'cholera,' and other septic fevers. In place of heart failure, we must write vasomotor failure." The treatment of medical shock is independent of the cause, whether due to trauma, toxemia, hemorrhage or anhydremia, for the problem physiologically is the same—namely, a disproportion between the blood volume and the vascular bed. Fifty percent glucose intravenously is the first defense, next large quantities of saline by vein, and lastly, transfusion. Blood will be most effective "in the assumption that

it contains a non-diffusible substance—i.e., serum protein—which gives a more permanent influence." The three treatments are given in that order due to the fact that speed is essential, and hence availability must play a part.

In infection, the effect of transfusion has still some debatable points. Jackson in Boston has recently stated that it is his opinion that transfusion definitely depresses the white count, and so is contra-indicated in a condition where its elevation is demanded. On the other hand, however, we know that in septicemia and bacteremia, medical shock is a distinct possibility, and as already quoted, transfusion is indicated. My own opinion has no weight against such investigators as Jackson, but I have seen the procedure many times to be of distinct benefit.

There is another condition in which transfusion has been recommended and condemned, and that is Agranulocytosis. It was in this condition that Jackson uttered his dictum, by saying: "There seems to be little convincing evidence that transfusions tend permanently to raise the white count, or to stimulate the bone marrow." On the other hand, both O. H. P. Pepper and Hueber feel that transfusions are of benefit. And in Jackson's own series in which Pentonucleotide was used, the mortality of those cases in which transfusion was used was the same as in those cases in which it was not. It is safe to say, then, that transfusions at least do no harm. Those of us who have had patients with this serious and overwhelming disease, feel that anything that might help should be done. Pentonucleotide is not proven in its efficacy, and we give it without stint. Transfusions may help to tide the patient over until such a time as his bone marrow can resume its normal function—and I see no valid reason why we should withhold them.

The place of transfusion in the treatment of chronic disease is important. In rheumatic fever, and rheumatoid arthritis, the resultant anemia may be quite severe. Convalescence in these conditions is notoriously slow anyway, and when a secondary anemia is also present, the patient often stays on the hospital ward for weeks. Beside being of distinct benefit to the patient, I feel that transfusion in these diseases has an economic aspect of interest. Our hospitals are harping on costs these days, and if the attending physicians suggest a transfusion, the cost of the procedure may appear excessive. As a result, the patient is given iron, and continues to lie around. In 1934, the cost per patient per day to

the Rhode Island Hospital was \$4.68, not including that to the community at large, and to the patient himself. A transfusion, which will cost the hospital \$35.00, is then equal to roughly seven days of care. To those of us who have seen patients with rheumatic fever, in an apparently stationary state suddenly improve as a result of a transfusion, one does not have to prove that the procedure is cheaper in the long run. For even though their anemia may not be severe, the uplift gained from this intravenous cocktail is sufficient to slow their pulse, and to stimulate an hematopoietic response. This same argument also applies to convalescent typhoid cases, and to those who are recovering from hemorrhage from a duodenal ulcer.

Chronic cases of carcinoma of the stomach do not often appear on the wards of a hospital. However, the anemia from this condition may be severe, and the patient is often benefited for the time being by small transfusions. The general practitioner is always anxious to do anything possible to care for his patients—and I can say with confidence that I have seen patients in this condition improved symptomatically by small repeated transfusions.

The same regime also may be considered in such chronic diseases as chronic leukemia and Hodgkin's disease. While of course no change in the pathological process will be obtained, symptomatically, there will be improvement. After prolonged treatment by X-ray, patients often become anemic. Radio therapy is, therefore, curtailed. In this situation, a transfusion can be given, which will raise the hemoglobin and red count enough to permit further X-ray therapy. This process can be repeated indefinitely. I have seen it done in several cases with surprisingly good results.

While on the subject of blood diseases, one also thinks of hemophilia and the purpurae. A small transfusion in the former is an accepted form of treatment before an operative procedure, for it will often prevent bleeding for several days. In the latter condition, it may also stop bleeding, and thereby allow a splenectomy to be done under easier circumstances. In those cases in which it does stop bleeding, it at least fortifies the hemoglobin and red count so the patient can stand the operation better. In that queer condition in which the bone marrow apparently lies down on its job—Aplastic Anemia—we have today but one remedy. The basis for the use of transfusions in this condition is in the hope that they will tide the patient over until such a

time as his bone marrow may again resume its normal function.

One more group of conditions will be mentioned. I refer to those diseases in which there is a loss of plasma substance. Nephrosis is a good example. In this disease, as we know, the kidney apparently loses its power of withholding albumen, and this valuable protein is poured out into the urine. In treatment, we try to give the patient a high protein diet. Treatment is not always successful, and transfusions can be given to supplement the diet. I recall very vividly a patient with this disease who was admitted in extremis. Transfusions were resorted to in desperation, and the patient lived. When I last saw her, which was over a year later, she was still coming in every two or three months for more blood. The basic condition in the case still remained, yet from a symptomatic and laboratory viewpoint, the patient was improved.

I shall not dwell long upon the various methods of transfusion, for this will be covered in the next paper. The battle of whole blood vs. citrated blood has been waged for many years, and the percentage of reactions varies with the different writers. The report of R. C. Beck is, I think, consistent with the conclusions of the majority, and the number of transfusions that are given lends a note of sincerity to the result. In 5,908 transfusions of citrated blood, he reports reactions in 29.29%. In 11,094 cases in which whole blood was used, he obtained reactions in only 11.14%. Stetson of New York, in discussing this point, states that there is too much evidence from too many reliable sources to permit of doubt that the use of Sodium Citrate does cause frequent and severe reactions. It is needless to ask, but why should we continue to employ a method which can cause such distressing reactions, when we have an equally effective method which will not? The answer is adequately given by Kordenat and Smithies, who say, "There is no reason why anything but whole blood—i.e., in its most efficient biological form—should be employed in a hospital today."

The symptoms of reaction should be known, and carefully watched for by any person doing a transfusion. Pain in the lumbar region, or a short cough are the first indications of trouble usually. Flushing and pallor of the skin, sweating, dyspnea, cyanosis, falling pulse, dilatation of the pupils follow. The proper procedure is to stop the transfusion immediately. Adrenalin, atropine, and morphine will usually control the situation. It should not need to be

said, but before every transfusion, the bloods should be crossed for agglutination, even though they have been crossed before a previous transfusion. For it is known that patients who have had several transfusions often develop agglutinins that were not present before.

Summary

The beneficial effects of transfusion are obtained:

1. By restoring the bulk of circulating fluid—as in medical shock.
2. In the influence on hemorrhage, and in the provision of material for the blood functions.
3. In rest for and stimulation of the hematopoietic organs.

Lastly, a word of caution is given in guarding against those reactions that occasionally do occur.

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SOME SURGICAL ASPECTS OF BLOOD TRANSFUSION*

By JESSE P. EDDY, 3RD, M.D.

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Blood transfusion is one of the oldest weapons of the healing art. The ancient Egyptians made many references to it in their writings. Pliny and Celsus saw fit to condemn it. In the *Metamorphosis* of Ovid¹ we have, "Why now do ye hesitate and do nothing? Unsheath your swords and draw out the old blood that I may fill the empty veins with the blood of youth." In 1492 not only was Columbus credited with his famous discovery of America, but one of the very earliest recorded transfusions failed to save the life of Pope Innocent VIII. In the words of Villari,² "The vital powers of Innocent VIII rapidly gave way. He had for some time fallen into a kind of somnolency which was sometimes so profound that the whole court believed

him to be dead. All means to awaken the exhausted vitality had been resorted to in vain when a Jew doctor proposed to do so by the transfusion, by means of a new instrument, of the blood of a young person, an experiment which had hitherto only been made upon animals. Accordingly the blood of the decrepit old Pontiff was passed into the veins of a youth whose blood was transferred into those of the old man. The experiment was tried three times and at the cost of the lives of three boys, probably from air getting into their veins, but without any effect to save that of the Pope. He expired on the 25th of April, 1492. Another version³ contradicts this tale, saying that the three boys were bled until they died and the Pope drank a draught prepared from this blood without benefit."

Jean Denys, physician to Louis XIV., is given the credit for having performed the first successful transfusion of blood in man. In June 1667⁴ he injected the blood of a calf or lamb into the veins of a young man dying from repeated venesections. The patient survived and apparently recovered his health. Violent controversies arose regarding the operation and it was decreed that for the future no transfusion should be made on the human body except with the approbation of the Physicians of the Faculty of Paris.

In 1669 Richard Lower of England performed the first direct transfusion of blood from one animal to another.

Then followed a considerable period when little or no advance was made in this field. Transfusion was again in vogue during the Franco-Prussian War but later fell into disrepute.

In 1892⁴ Prof. von Ziemssen reported on the first syringe method of blood transfusion. In the beginning he injected whole blood subcutaneously followed by vigorous massage. This procedure was not without pain especially as he used from 300-450 cc. of blood at an injection. He reported an improvement in hemoglobin of from 10-15% with no fever and no hemoglobinuria in these cases. Next he devised the method of syringes. He inserted a needle into the vein, withdrew a syringe full of blood and injected it through a needle already inserted into the vein of the recipient. He advised at least three syringes of a capacity of 25 cc. so that while one was being filled and one being emptied the other one could be cleaned out with sterile salt solution. Following the intravenous infusion he occasionally noted a rise of temperature and a chill, but in no case was there hemoglobinuria. There was no

*Read before the Providence Medical Association April 1st, 1935.

evidence of hemolysis and no free hemoglobin was found in the blood serum. He encountered no phlebitis or secondary thrombosis and he found that the needle could be stuck into the vein again at the same place. He always had a number of needles ready, and his average transfusion was from 200-300 cc. Von Ziemssen first raised the question whether often repeated transfusions in the bad progressive anemias might have a use, and suggested the possibility that by those means a real cure might result in some cases.

Carrell⁵ and Crile in the early 1900's added much new interest with their successful methods of end-to-end suture of blood vessels and subsequently multitudes of cannulae and methods of suture were devised. The chief objections to these methods were the inconvenience to which the donor and patient were put, the technical difficulties involved, and the difficulty in estimating the amount of blood transferred.

Following closely behind these direct methods came the indirect ones, namely, those transfusions in which the blood while being transferred from donor to patient comes in contact with the walls of a syringe, needle, receptacle or canula. Paraffin coated walls were utilized in many of these to prevent clotting of the blood and the method of⁷ Kempton and Brown was foremost among these.

In April 1913, Lindemann, in a paper read before the New York Academy of Medicine, resurrected and elaborated upon the practically forgotten method of old Prof. Von Ziemssen of Germany and the multiple syringe method of Lindemann came into considerable favor. More recently still Unger, Scannell, and many others have devised ways and means whereby only one syringe is needed in a transfusion.

While all these efforts were being directed toward the perfection of instruments whereby blood might be transferred rapidly from donor to patient without clotting, three workers,⁸⁻⁹ almost simultaneously in 1915 reported upon a chemical, sodium citrate, which, when added to blood in the right amount, prevented clotting.

Thus we are taken up to the present day where we still speak of the direct and indirect methods of transfusion but not with the same meaning as that of twenty years ago. Then a direct transfusion was just what it said, an arterio-venous connection between donor and patient. But today when we speak of a direct transfusion we mean a whole blood transfusion, directly given by means of a closed

system, unexposed to air. The old term indirect transfusion has come to signify chiefly citrate transfusions with all that the term implies.

The performance of a blood transfusion is a surgical act and physicians doing this type of work should be familiar with the various methods in vogue today; the advantages and disadvantages of these methods; the indications and contraindications for transfusion; the dangers associated with the transfusion of blood. These aspects of blood transfusion concern every man who now or at any future time may be confronted with this problem of transfusing blood.

The present day methods of blood transfusion are, broadly speaking, divided into two camps—direct and indirect, defined previously. Each system has its ardent advocates, and the battle of which is better has been waging for the past twenty years. I should be at fault not to briefly sum up the evidence pro and con. Probably the foremost advocate of citrated, indirect transfusions in this country is Richard Lewisohn, surgeon to the Mt. Sinai Hospital, New York City, who in 1915 was one of the three authorities who independently and practically simultaneously introduced this method to the medical world. He has recently written that¹⁰ “unquestionably a chill following a transfusion may be a serious complication. In many instances transfusions are given to patients who are very ill. In such a case one should employ the method that produces the least number of chills. On this basis a careful clinician may prefer non-citrated blood.” He and his co-workers, by dint of centralizing transfusion work in their hospital, by eliminating every possible source of foreign protein from their distilled H₂O and instruments have reduced post-transfusion reactions from 20% to 1.2% in the citrate series and from 6% to 0.7% in the whole blood direct series. Thus we have it on the highest authority and under the most rigid precautions that citrate transfusions produce **at least twice** as many unfavorable transfusion reactions as that of direct whole blood.

Minot writes “infants with certain chemical abnormalities of the blood may be harmed by transfusion of citrated blood even when no incompatibility or allergy can be demonstrated.” Beck¹² quotes Rhodes of the Rockefeller Institute for Medical Research as saying, “In this hospital, where we deal with many blood dyscrasias of severe degree, we are opposed to the use of citrates in transfusion. Our method is that widely used in New York City employing whole blood transfused by means of

Unger Needles and a series of 20 cc. Record syringes. We feel that this is the simplest, most fool-proof, most efficient technique so far devised." Beck closes his paper by saying "that it would seem reasonable to assume that blood the shortest time outside the body, to which no foreign substance is added, which does not have an opportunity to become chilled nor to be exposed to the air, and which comes in contact with a minimum of foreign substances, all other things being equal, will give the most consistent and satisfactory results in all types of cases."

Of the citrate method, Bernheim wrote, "For the practitioner in the small community with no one skilled in the giving of whole blood, the citrated method is certainly the one of selection. But when you have refinements that go with hospitals and someone capable of giving whole blood it is only reasonable to use this method."

There are many different good methods for carrying out the direct transfusion of whole blood. One of the simplest and quickest which has stood the test of time, is the so-called Lindeman method which is so flexible that it may be as easily and quickly performed in the home, the hospital room or operating pavilion. Its only disadvantage, if such may be called the case, is that it requires one doctor and a nurse familiar with its technique, and another doctor to assist the transfusionist. Preferably all three should be well versed in the procedure.

The advantages of this method over all other methods, direct and indirect, are these:

1. *Speed.* There is no other method of blood transfusion which permits a wider latitude of speed than this one. The fastest transfusion necessary in emergency cases for extreme shock from hemorrhage may be quickly run off, or a slow, measured transfusion, necessary in bleeding ulcer cases can be as easily provided. While the blood is being collected and citrated in the citrate method the whole transfusion may be completed with this system.

2. *Simplicity.* There is no highly ordered machinery or elaborate equipment necessary to perform a transfusion by this method. Six syringes, two Unger or Lindeman needles with a few in reserve, three basins of sterile saline, two tourniquets, two doctors and a nurse familiar with the technique and a transfusion may be performed. No valves to depend upon or watch; if one syringe gives trouble it may be discarded without notice; no rubber tubing to throw off its foreign protein,

just a steady succession of syringes carrying blood from donor to patient as directly and quickly and with as little change in the blood as is humanly possible to attain.

Other direct methods today in use are numerous and include the Kempton-Brown paraffin tube system which some think to be the most satisfactory one yet devised. It is good and sure in familiar hands, but has the disadvantage that a vein must be cut down upon and sacrificed with every transfusion in addition to the fact that the blood must be collected in eight minutes and discharged into the patient in four more if danger of clotting is to be avoided.

Unger, Scannell, and other similar inventors have contributed their share to the cause of direct whole blood transfusion but none of them match in simplicity and rapidity and dependability of performance the marvelous technique of Lindeman, the foundation of which was laid down so many years ago by Von Ziemsson of Germany.

The medical indications for transfusion have just been given. The chief surgical indications for transfusion are hemorrhage and shock, and in building up a debilitated patient for and supporting him after a major operation. No elaborate discussion of these need be undertaken here.

Suffice to say that from a surgical standpoint the transfusion of blood is often a life-saving procedure and should be available night and day at a moment's notice, in home or hospital, with equal facility and surety.

In 1920, Dr. Pemberton of the Mayo Clinic wrote an article which appeared in the Iowa State Journal of Medicine and has been widely quoted since, in which he said:¹⁴ "The operator should be conversant with all the dangers associated with the transfusion of blood. He should exercise judgment in advising the procedure and he should be conscientious in the selections of donors. The application of this valuable therapeutic measure must not be undertaken without a careful consideration of all the dangerous complications which may follow. The procedure is very often considered only a simple intravenous medication or a minor operation, while in reality its potential dangers place it with the major operations."

This statement is equally true today and no one should undertake the performance of a blood transfusion without a knowledge of the causes and prevention of post-transfusion reactions, few as they may be.

These¹⁵ reactions may be divided into two main classes—hemolytic and proteolytic, according to Stetson. "Hemolytic reactions are those resulting from incompatibility between the bloods of patient and donor due to mistakes in grouping or to the presence of minor iso-agglutinins within the known groups. We must also include in this class the reactions occasionally seen after transfusions of individuals suffering from certain pathologic conditions in which there is a very active hemolytic agent at work. These are not constant but may rarely occur in such conditions as pernicious anaemia, purpura, hemolytic jaundice, leukemia and sepsis. This type of reaction can be neither foreseen nor avoided but the possibility of its occurrence should be kept in mind so that prompt measures may be instituted to counteract its effects should it occur. Only recently I transfused a small boy with a severe progressive anaemia, using 150 cc. of whole blood from the father. The reaction was very favorable. One week later he was again transfused in like manner with the same amount of blood from the father. At the finish of the transfusion the child's face became flushed, then paled, the pulse and temperature rose rapidly, vomiting set in and subsequently hemoglobinuria and bloody diarrhea were added to the picture. The child was controlled with injections of morphine and adrenalin chloride and cleared up in 24 hours time. Re-examination of the bloods revealed them to be perfectly compatible by all known tests."

Compatibility tests should be performed by the transfusionist himself. Lindeman found that his post-transfusion reactions were increased 26% when he allowed others to do the blood testing for him. A convenient and satisfactory method is to draw 5 cc. of blood from the vein into a test tube. Defibrinate by whipping with a stick. Centrifuge, pipette off serum, wash cells with normal saline. Recentrifuge, discard, wash saline and add fresh saline to make a 50% suspension. Place 2 drops of undiluted serum on a slide and add to it one small drop of red cell suspension which we wish to test. Rock slide back and forth in a good light against a white background. Incompatibility is manifested by macroscopic clumping. The reaction should be watched for a period of 30 minutes in case of doubt.

Test sera should be of high titre so that the reaction will be rapid and complete.

The indiscriminate use of universal donors is to be condemned because of the not infrequent reports of alarming and even fatal reactions occurring as

a result of their use. Landsteiner¹⁸ is of the opinion that donors of the homologous group are preferable.

Proteolytic reactions embrace three distinct types:

1. Febrile reactions with or without chills and unaccompanied by any other symptoms.
2. True protein reactions of sensitization as evidenced by the dermal reactions of erythema and urticaria.
3. Anaphalactoid reactions.

The early recognition of the signs which point to these reactions followed promptly by the administration of adrenalin chloride 1-10,000 in 10-15 minim doses will frequently alleviate them. A history of asthma or hay fever or any protein sensitization should always be inquired into and fasting donors used in cases of this type. It is also well to use different donors on subsequent transfusions in these cases.

Last, but not least, the danger of transmitting disease is possible through a transfusion. Asthma, malaria, measles, smallpox and syphilis are among the diseases that have been contracted through the transfusion of blood.

This brings us down to the donor problem, the concern of every physician interested in blood transfusion. It has come to be more widely recognized that a controlled, dependable source of good donors is necessary in order that the best type of transfusion work may be done in a community.

In 1928, with the financial assistance of the Rockefeller Foundation and the New York Academy of Medicine, the Blood Transfusion Betterment Association of New York, the first of its kind in the world, was established, founded for the purpose of supplying blood donors, of known type, health and fitness, at a moment's notice and for a small fee. The need for such an organization has always been great.

In communities lacking some such system relatives and friends must be used for donors and much time must necessarily be wasted in testing their bloods, sometimes hours being lost before a compatible donor is found. Furthermore, such a relative or friend cannot undergo the necessary tests to rule out disease and show the good quality of his blood. Much must be left to chance. Far better to be able to call a donor whose type is known to be that of the patient, whose physical condition is one hundred per cent and whom you know will

(Continued on page 155)

THE RHODE ISLAND MEDICAL JOURNAL

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EDITORIALS

THE VIRTUOSO PHYSICIAN

Your character is what you are, your reputation is what is said about you. The former is known to the *cognoscenti* and your fellows, the latter is what is said about you. It is obvious that true evaluation is far less easily learned that the far less reliable hearsay evidence. This is by no means to be ignored for it is evident that many persons are, through their ignorance, unable to originate the sentiments regarding doctors and medical matters which one hears so frequently. Even physicians have much

difficulty in verifying reports which often bear the stamp of professional propaganda. It is often of interest to know how some matters of popular medical interest find their way about. Startling cures, unusual operations, which often are every day hospital matters, unusual claims as to "uncanny diagnostic ability" frequently find their way into the popular mind through some methods which are both curious and unprofessional. Now there can be no doubt but that some physicians, through unusually large experience, acquire a justly large reputation for their skill. It is eminently proper that it should be known from having had the experience of hundreds and even thousands of cases of a special and peculiar nature. Not long ago this column urged

that those who were particularly well equipped in experience and apparatus for bronchoscopy should be better known. It is extremely gratifying to know that this important step in our medical status has been accomplished. It is eminently proper that those who are particularly interested in special problems should "advertise" in this Journal. Specialism has come to stay and both profession and public should be able to refer to our pages for the quick selection of physicians who may be had in emergencies. But we have no particular use for anyone who subsidizes any individuals or group to tout for custom. It has often been said that "good wine needs no bush," but in a forest who can find that particular bush where the life-giving fluid may be found? There is no reason why in addition to these pages the Medical Library should not be called upon to furnish information of this kind and there is every reason why professional cards should appear in this Journal to a far greater extent than now prevails. The very rapid growth in the numbers of the medical profession in this state makes such a course important and imperative. And it should be the function and duty of the R. I. Medical Society to investigate and admonish breaches of professional ethics and custom which are so rampant at the present time. The exigencies of our present economic status have brought forth many practices of arrant charlatanism which are most dismaying to thoughtful physicians. Indiscriminate serology in the hands of those who have no scientific experience or background, promises of cure and the claiming of special skill vie in irrationalism with the absurd claims of the cults and lend them a strength to which they are not entitled. When one praises a brother physician he praises himself and forges one more link in the chain which should band a sacred professional brotherhood.

THE DOCTOR IN POLITICS

As a matter of general policy the shoemaker should doubtless stick to his last and the surgeon to his scalpel, the doctor to his doses, and the physician to his pill.

Nevertheless circumstances do arise which make it wise and even necessary for a member of the medical profession to enter public life. Boards of health and health commissions must be manned by experts. Schools must have their examining physicians and in various other ways the doctor in his

professional capacity is needed for public as well as private practice.

When, however, it comes to matters of party politics and non-medical political jobs the position of the medical man at once becomes questionable. He cannot serve two masters and if he attempts to combine political office holding with private practice both interests will suffer. Like the doctor who tries to build up his fortune in the stock exchange or in real estate, his patients will suffer, his professional zeal will dwindle, and in the end he may find that he has sold his birthright for a mess of pottage.

Rhode Island has in the past had occasion to be very proud of her medical men serving as experts in public office. The work of these men has been far removed from political machinations. Let us hope that in the future the fair name of the profession will continue to be brightened by the professional efforts of those members who are called to serve the public.

SOME SURGICAL ASPECTS OF BLOOD TRANSFUSION

(Continued from page 153)

answer the call in a relatively short period of time. The Blood Transfusion Betterment Association of New York has over twelve hundred donors on the active list and supplies donors for approximately 500 transfusions each month, a most successful, high type organization. The Providence Medical Association has recently established a counterpart in Providence and its facilities are now being used by the physicians of this city and state.

In conclusion, I have summarized the development of transfusion and discussed the present day status of methods.

The direct whole blood transfusion of Lindeman is the procedure of choice.

The causes and prevention of post-transfusion reactions have been discussed.

Blood donors should be organized and regulated under medical supervision.

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MEASLES IMMUNIZATION*

By D. L. RICHARDSON, M.D.

SUPERINTENDENT OF C. V. CHAPIN HOSPITAL

This subject is worthy of serious consideration, not only because of its importance but also because of the multiplicity of methods now employed.

Immunization against measles was first discovered in 1918 in this country and Europe almost simultaneously, and altogether independently. It was found that an injection of serum obtained from the blood of a patient recently recovered from measles would usually prevent the disease. The immunity, of course, was a temporary immunity, but even so its value, if once found to be feasible and reliable on a large scale, would be a life saving measure even though it would have little or no value in preventing outbreaks of the disease, except, perhaps, in institutions caring for children.

Following its discovery convalescent measles serum was tried out rather extensively in Europe, certain South American countries, Japan, and in this country. The findings of those who first employed it were confirmed and it has been used rather generally, primarily to protect young children among whom the fatality rate is high. That this is true is well shown in the mortality statistics of the United States Registration. In 1930 there

were 3,820 deaths from measles. Of these deaths 3,294 were in children under 5 years of age, and 526 in persons 5 years and over. Of the 3,294 deaths 2,354 were in children under the age of 3 years and 1,877 under the age of 2 years. This clearly shows that measles is most fatal during the first 2 or 3 years of life. It is in this age group that the immunization against measles is of the most value and when employed is of real public health value.

It is true that the fatality of measles is very low, about 1% or less. This rate varies considerably from one outbreak to another, and in recent years has been very low. Subsequent outbreaks may be quite severe, with the fatality rate well above 1% in the community, and in infant asylums the rate has been as high as 25%.

Since the original work on measles immunization was done, several modifications have been employed and quite recently an entirely new kind of immunization has been tried out. It is of interest to discuss these various methods.

When first introduced only the serum of blood taken from convalescent measles patients was employed, the blood being taken within a month or such a matter, of the acute attack. It was believed that at this time there would probably be a maximum of anti bodies in the blood and subsequent practical experience over a period of years has borne this out.

In order to demonstrate what convalescent human blood serum will accomplish when used on a fairly large scale, an experience in Providence over ten years ago is noted. It was decided that because of the difficulty of obtaining blood donors to limit the use of serum to children under 3 years of age. In the early work with measles anti-serum, 10-15 cc. of serum was used. To still further conserve the available serum it was decided to use only 6 cc. It was further determined that so far as possible its use would be confined not only to children under 3 years of age but also to these only after exposure to an older child in the family or other definite and known contact. Before the outbreak was over it was found necessary to use it in certain institutions to which measles had gained entrance. It was, however, intended to be a community experiment and under conditions which would be difficult enough to show its real value.

The preparation of the serum was done at the Chapin Hospital. Great care was exercised in the

*Delivered before the Providence Medical Association May 6th, 1935.

selection of donors. At the very beginning the serum of one donor proved to be valueless because subsequent information indicated that he probably did not have measles. So far as possible donors were confined to convalescent patients in the hospital, from adults or adolescents, if possible.

The blood was with aseptic precautions drawn into a sterile flask and allowed to clot at room temperature. It was then put into a water bath for one-half hour to shrink the clot to squeeze out contained serum and put in the refrigerator over night. Next morning the clot was removed and the serum clarified by centrifuging. It was then put up in 6 cc. doses in rubber stoppered glass vials. 1% phenol was used as a preservative. The blood of each donor was given to Wasserman test and each batch of serum tested for sterility.

Realizing that the serum of different donors varied in its antitoxic value it was proposed to pool all the serum. Because of the constant demand for it this was not possible, and only about one-third of the serum was pooled.

In the community the serum was administered by family physicians. They were asked to fill out a card for each case and to make a final report as to whether the serum was effective or not. They were also urged to give it as early as possible after the child had been exposed and preferably during the first week of the incubation period.

During the outbreak about 650 vials of the measles anti-serum was distributed to practicing physicians and detailed reports were received of the results of its use on 550 children. 418 children were entirely protected and in only 27 instances was the exposure uncertain. 132 children contracted the disease. In 66 of these cases the disease was very mild, mild in 53 and unmodified in 13 instances. There were no deaths.

In the 132 cases in which the serum failed to protect entirely the first possible exposure was determined in 114 instances. In 58 instances the serum was given within the first 7 days after the first exposure, and in 67 cases it was given at a later date, even after the disease had begun. The administration of the serum failed in 24% of the children to entirely prevent them from having measles, although in many more instances the disease was much modified. The percentage of failures was lowest in children 1 year and under, when it was 18%, and 17.8% at the age of 2 years. It was less effective in older children up to 40%, or 50% in children over 6 years.

To show what the serum accomplished in institutions for children the following results were observed in one infant asylum with a capacity of 250, in which the children were all under 6 years. 186 children were given convalescent serum of which 99 did not develop measles, while 87 were not protected. There were 9 deaths, a fatality rate of 5%. In previous outbreaks the fatality rate had reached 25%.

From the experience in the use of measles convalescent serum in this epidemic, certain conclusions were reached:

1. That it was a life saving measure in children under 2 or 3 years of age by preventing or modifying the disease.
2. That it is useful in controlling outbreaks of the disease in child caring institutions.
3. That the dose 6 cc. was probably quite large enough.
4. That the immunity was not lasting but will tide over an outbreak small children until the next outbreak when they are older and the disease is less serious to life.
5. That the disease is infectious no matter how abortive the attack really is.
6. That the donors should be in good physical condition and have had a recent frank attack of measles.
7. That the serum from several donors should be pooled.
8. The serum can be kept sterile for a month or such a matter without a preservative if kept in a refrigerator.
9. That there are no unpleasant reactions except slight swelling and tenderness at the site of injection.
10. That it is difficult to secure enough donors because so few adults contract the disease in an outbreak and because bleeding of children is not satisfactory because of the small yield, and parental objection.

This is a fair sample of the results obtained with convalescent measles serum used as a temporary immunizing agent. In some places the results have not been as good but it is rather generally agreed that it is quite an efficient method.

The next in efficiency and feasibility is the use of whole blood of recent convalescents. It is equally efficient and if the physician is familiar with intravenous work it is a simple procedure. As a usual thing an older child comes down with the disease first and exposes a baby or younger child in

the family. By the end of the first week of the incubation period of such exposed children, and sometimes even earlier, the older child has sufficiently recovered so that withdrawal of 15 or 20 cc. of blood will do no harm. The blood can then be injected immediately into the muscle of the outer aspect of the thigh of the exposed child. This is being done, particularly by some pediatricians. The difficulty is to get the blood early enough to use on the secondary cases. Even though the disease is not prevented it may be modified. There is little danger of infection and no unpleasant general reactions.

Owing to the difficulty of obtaining convalescent serum other means of producing temporary immunity have been tried out. Soon after the value of convalescent measles serum was demonstrated the serum from adults who had the disease in childhood was employed. It was found, however, that as much as 20 cc. of serum was required to obtain good results and these have not been very constant. The anti body content of the blood so long after the disease is so much decreased that it is not very efficient.

More recently McKahn of the Children's Hospital in Boston and his colleagues have prepared a placental extract for inducing temporary immunity against measles and with encouraging results. So far it has not been used widely enough to judge of its value. Recently there has been found to be quite unpleasant reactions from the commercialized product, so much so that one company has withdrawn it from the market. What little it has been used in Providence has not been very successful but the experience is too limited to pass judgment. Should this method prove to be effective and free from reactions it would supplant all others because it can be commercialized and should not cost as much as human serum which can't be commercialized.

While immune serum produces only passive immunity attempts have been made to produce active immunity by administering it late in the incubation period from the 7th to the 10th day. The idea is to modify the disease and yet not prevent it and in this way a lasting immunity could be expected. This practice is followed by some physicians with some success. The chief difficulty, however, is that it is not always possible to determine the exact time of infection from which to date the incubation period. Where the primary case is in the house this is possible with considerable degree of accuracy but when the exposure is outside the home this is either impossible or at least difficult. When feasible this is good practice for there is reason to believe that

even the mildest attacks with or with no eruption will produce a lasting immunity.

Measles has not in this vicinity recently been a serious disease. The outbreak in 1931 and 1932 was very extensive in Providence, there being about 9,000 cases with only 22 deaths. The present outbreak really got started in early March, and has also been very mild. To May fourth, 1,903 cases have been reported and this includes 279 cases occurring in 1934 and so far only 1 death has occurred. The next outbreak may be severe and even the present one may increase in severity before it terminates.

Another factor in the low fatality rate is that great pains are taken to see that every case is seen by a physician and the family urged to furnish good nursing care.

The local physicians are calling for convalescent serum faster than it is possible to supply it, and as yet we do not know how many small children have received prophylactic injection, but there is reason to believe that this has also been a real factor in keeping the fatality rate so low.

One very good test as to the value of measles convalescent serum is the fact that the practicing physicians are still calling for it although about 15 years have passed since it was first employed in the city.

SOCIETIES

RHODE ISLAND MEDICAL SOCIETY

The regular quarterly meeting of the Rhode Island Medical Society was held September 5, 1935, at the Pawtucket Memorial Hospital upon the invitation of the Board of Trustees of that institution.

The meeting was called to order by the President, Dr. Roland Hammond, at 4 P. M.

The minutes of the annual meeting having been published, it was voted to omit the reading of the same.

The President announced the deaths in August of two Past-Presidents of the Society: Dr. John W. Keefe and Dr. Julian A. Chase.

The terms of the officers of the Board of Classification, Dr. D. L. Richardson and Dr. N. S. Garrison, having expired, the President reappointed both of these Fellows for a term of three years each.

The President urged the Fellows to send to the Chairman of the Committee on Change of By-Laws, Dr. A. T. Jones, the return postal cards indicating their preference as to the type and number of meetings of this Society in the year.

The following program was presented:

1. "Report of 1935 Sessions of the American Medical Association," Guy W. Wells, Delegate to the A.M.A.

2. "Aputrid Pulmonary Necrosis with Presentation of Case," Jacob Greenstein, from Medical Service of the Memorial Hospital. Discussion by J. F. Kenney and E. W. Benjamin.

3. "A Case of Uremia with Presentation of Specimens," K. M. Barr, from Medical Service of the Memorial Hospital. Discussion by J. F. Kenney, Guy Wells, F. G. Taggart.

4. "Some Surgical Conditions of the Large Intestine with Presentation of Cases," Frederic V. Hussey. Discussion by F. A. Cummings.

5. "The Doctor Looks at the Cults," Charles L. Farrell. Discussion by J. F. Hawkins and K. M. Barr.

On motion of Dr. Mowry, duly seconded, a rising vote of thanks was extended to the Board of Trustees and the staff of the Pawtucket Memorial Hospital for their courteous invitation to the R. I. Medical Society to hold this meeting at the Hospital.

The meeting adjourned and a collation was served.

Respectfully submitted,
J. W. LEECH, *Secretary*.

IMPORTANT NOTICE

WORKS PROGRESS ADMINISTRATION

205 BENEFIT STREET, PROVIDENCE, R. I.

To: Medical Societies, Hospitals, Physicians, Surgeons and Licensed Practitioners:

The Works Progress Administration, Mr. J. Burleigh Cheney, Administrator for Rhode Island, pursuant to established rules and regulations of the United States Employees' Compensation Commission, Washington, D. C., is directed to communicate to all Medical Societies, Hospitals, Physicians, Surgeons and Practitioners in the State of Rhode Island, the desire of this Administration to solicit the full co-operation of the profession for the care and treatment of W.P.A. workers who, due to accidents, suffer injuries in the performance of their duties, necessitating medical treatment. The Commission particularly stresses that such injury shall be of a traumatic nature, and no treatment is authorized except as indicated.

Definition of Injury

The term "injury" means only traumatic injury by accident causing harm or damage to the physical structure of the body and shall not include disease in any form except as it shall naturally result from such injury.

Authorization

It is provided that all medical and hospital treatment and services shall be engaged and authorized in the following manner: Form CA 16- (request

for treatment, which includes on the reverse side, physician's report) shall be accompanied by form S 69- (voucher for services and supplies of Hospitals and Physicians) when injured worker is presented for treatment, and may be waived in emergencies, to be supplied at the earliest possible moment thereafter, as bills cannot be paid in the absence of such written authority.

Fees, Services and Supplies

The Commission has agreed with representatives of the National Hospital Association on basic rates with general hospitals for services to Works Progress Administration employees, and will pay medical fees at rates not in excess of the minimum charge prevailing in the community for similar services.

Bills for Services and Supplies

A separate voucher must be submitted by each payee for services to each injured employee.

Vouchers from physicians and hospitals on form S 69- should be submitted when the employee is discharged from treatment, except when treatment or hospitalization extends more than thirty (30) days, in which case voucher S 69- should be rendered at the end of each thirty (30) day period, with a complete report from the attending physician.

Voucher S 69- should be verified by the signature of the injured employee.

Hospitalization will be paid for the day of admission but not for the day of discharge from hospital. Vouchers should be prepared accordingly.

Hospitals and physicians must not submit a voucher comprising the services of both. When a physician is owner or part owner of a hospital, a separate voucher should be prepared for each class of service.

In preparing voucher form S 69- care must be taken to meet the following requirements: All charges must be itemized to show specific dates on which treatments were given, and the charge for each, and a concise description of the injury for which services were rendered.

X-ray charges should be itemized so as to show the dates on which made, number of views, parts of the body X-rayed and the charge for each service. Charges for X-ray cannot be paid unless properly itemized.

X-ray plates or films should not be forwarded to the Commission unless specific request is made therefor.

The Works Progress Administration, through its State Compensation Officer, invites inquiry from the medical profession so that a clear, workable understanding may be had. The prompt payment of all obligations, by the Commission, will be facilitated by prompt and regular statements for services rendered.

Yours very truly,

PHILIP B. DUFFY,
State Compensation Official

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

Iodo-Bismuthate of Quinine in the Treatment of Syphilis. Oliver, N. E. *J. of Med.*, 7: 1, 1935, believes that this form of bismuth may be superior to bismuth salicylate.

* * * *

Aspirin Test in Rheumatic Conditions, Wolf, Mt. Sinai Hospital, N. Y. C., *N. Y. State J. of Med.*, 18; Sept., 1934, gives aspirin to patients suffering from rheumatic pains. The negative response to this dose (pain) is the deciding factor and governs the recommendation for removal of foci.

* * * *

Factors Influencing Sedimentation Rate of Erythrocytes. Thomas H. Cherry, *J. of Lab. and Clin. Med.*, 3: 257, 1934, gives his opinions. To rely on this test alone, without other laboratory data, is unwise. The test alone is confusing and as a prognostic aid it is of slight help. The leucocyte count or filament-nonfilament study in conjunction with the clinical picture is of much greater aid than the sedimentation rate. (It makes some difference, too, which method is used to do the test.—T.)

* * *

Roentgen Therapy of Hyperparathyroidism. Merritt and McPeak, *Am. J. Roentgenology and Rad. Therapy*, 1: 72, 1934, report six cases of bone disease which have been either entirely cured or definitely benefited by roentgen therapy over the parathyroid region. The facts point strongly to the etiological role of parathyroid disfunction in cystic bone disease and to the efficacy of roentgen therapy of the parathyroids in such lesions. (This condition should be suspected in patients who fracture easily. A fractured hip without much injury might easily result and it is encouraging to see results with the roentgen ray.—M. W. T.)

* * * *

Neoplastic Lesions of the Accessory Sinuses and Orbit. William L. Clark, *Med. Record*, May 1, 15 and June 5, 1935, shows that electro-coagulation can now be numbered among the effective methods designed for the removal of operable primary lesions of the accessory sinuses and orbit. Success is materially increased by the post-operative employment of radium or X-ray, the preference being given to radium.

* * * *

Advantages of Intensified Oral Cholecystography. Stewart and Illick, *Am. J. Roent. and Rad.*

Therapy, 5: 624, 1935, give a technic based on three factors: (1) Increasing and fractioning the total dose of tetraiodophenolphthalein. (2) The free administration of sugar preceding and during the roentgen examination. (3) The use of a fast Potter-Bucky diaphragm and an exact exposure technic.

* * * *

Occurrence of Common Duct Stone Following Gall Bladder Operation. Hermanson and Goldowsky, *N. E. J. of Med.*, 18: 806, 1934, show that there is a relatively high incidence of common duct stones following gall bladder operations and their presence may be accounted for in one of several ways: (1) Failure to discover and remove stones in the common duct at the time of operation. (2) Formation of stones within the common or hepatic ducts. (3) Descent of intra-hepatic stones. (4) Escape of stones from gall bladder into common duct at the time of first operation. (Frequent attacks of pain and jaundice lasting two or three days are very suggestive of common duct stone. Diphasic blood bilirubin suggests obstruction.—M. W. T.)

* * * *

Elongation of the Red Blood Cells in a Jewish Family. Pollock and Dameshek, *Am. J. Med. Sc.*, 188, 822, 1934, believe that it is possible that oval, elongated and sickled red cells and sickle cell anemia represent various gradations in the same abnormality of red blood cells. The most important factor in the pathogenesis appears to be that of heredity. (Racial characteristics of red blood cell abnormalities are seen in Cooley's anemia in Mediterranean races and sickle cell anemia in negroes.—M. W. T.)

* * * *

Syphilis of the Bladder. Fuat Kâmil, *Ztschr. f. Urol., Leipzig*, No. 3, 1935, 29: 163. This observer states that syphilis of the bladder may occur in any stage of the disease but gumma is the most frequent type seen. Papillomatous gummata may be found.

* * * *

Allergic and Infectious Factors in the Pathogenesis of Gonorrheal Polyarthrititis. S. Genkin and W. Ljachowsky, *Deutsches Arch. f. klin. Med.*, Berlin, April 8, 1935, 177: 420. These authors believe that there are two factors in the pathogenesis of gonorrheal arthritis, allergic and infectious, and that the two may act simultaneously or alternately in different stages of the disease.



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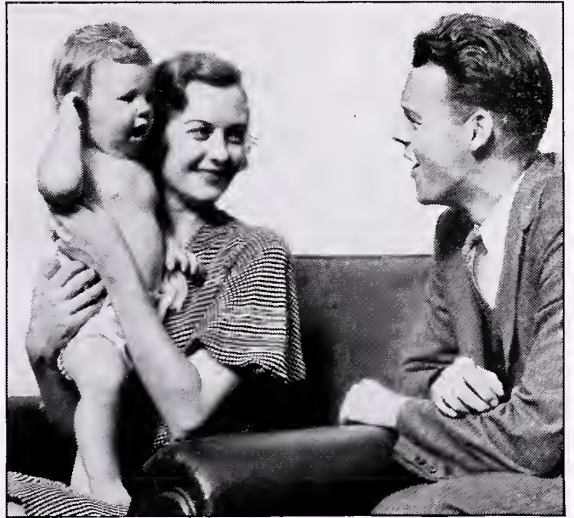
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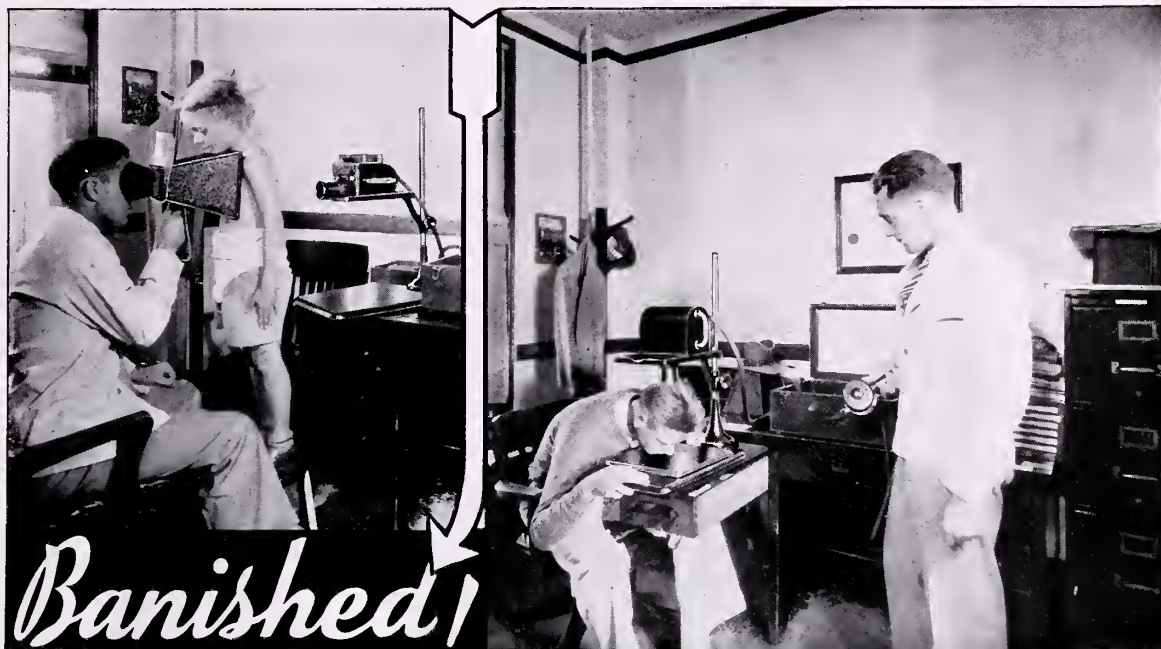
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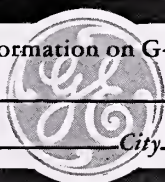
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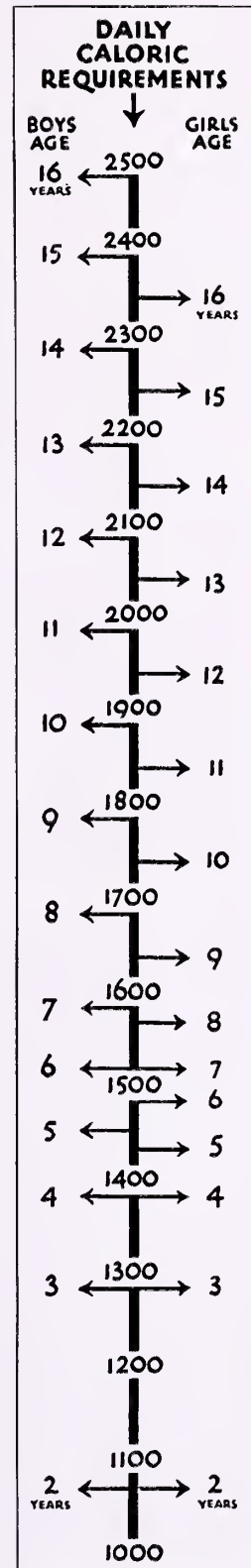
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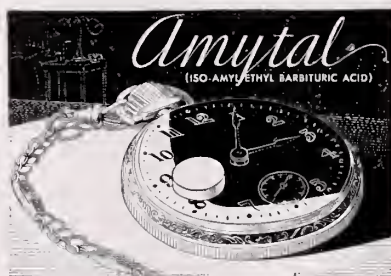
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SOME CLINICAL ASPECTS OF DEFICIENCY DISEASES IN ADULTS*

By CHESTER S. KEEFER, M.D.

*From the Thorndike Memorial Laboratory,
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Boston City Hospital and the Department of Medicine,
Harvard Medical School, Boston, Mass.*

In spite of the fact that the dietary deficiency diseases have interested workers in the field of nutrition for some years, it has been only recently that they have attracted the widespread interest of clinicians. At the present time there exists an enormous amount of information regarding these conditions, both experimental and clinical, and it is impossible for any one person to keep abreast with all of the studies that are being carried on in the field of nutrition. It is essential, however, that we, as physicians, pause from time to time and evaluate the existing information as it applies to the patient when he presents himself for examination. Since deficiency disorders may produce very widespread tissue changes it is not difficult to understand that the symptoms and signs may be numerous and variable. These are the aspects that I propose summarizing today.

Before proceeding with a detailed analysis of the changes that accompany the various deficiency diseases it is necessary to review a few points in the pathogenesis of dietary deficiencies. That is to say, what are the general conditions in which one observes these disorders? This question may be answered by saying that food deficiency disorders arise: (1) when the diet has been qualitatively or quantitatively restricted; (2) when there are defects of digestion and absorption or a pathologic process interfering with normal nutrition; and (3) when excessive demands are made upon the organism so that the reserves are depleted. Often there is a combination of these factors and they all require analysis in the individual case. Aside from the facts just mentioned it is necessary to appreciate that dietary defects are usually multiple and not

single. This is not difficult to understand when one appreciates that man does not select his diet so as to exclude only one essential food stuff. The result is that when a diet is deficient in one factor it is commonly lacking in others. Finally, many of the conditions are brought into being, or exaggerated, by infection. This may be such an outstanding feature of the illness that the fundamental disturbance may be masked and obscured. With these points in mind we may progress to a discussion of the various clinical aspects of the deficiency disorders as they are seen in adults.

Vitamin A Deficiency

The presence of this vitamin in the diet is necessary to prevent keratinization of the epithelial tissues. When it is present in deficient amounts then the tissue alterations are widespread. They are summarized in Table 1. Only a glance at this table indicates that the clinical features arising during the course of the deficiency will produce widespread tissue changes and clinical symptoms and signs. This is also the deficiency disease in which infection plays such an important secondary feature of the disorder. When the epithelial tissues become changed they are rendered vulnerable to infection. The appearance of infection may obscure the underlying tissue disturbance. In Table 2 are summarized the lesions resulting from infection.

Since vitamin A deficiency has been observed to be complicated by infections, it has been suggested repeatedly that this is an anti-infective vitamin. That is to say, it is inferred that if the dietary is supplemented by vitamin A, infections of various sorts will be prevented or reduced in frequency. When the question is studied in carefully controlled groups of cases it has not been possible to show that the addition of vitamin A to the ordinary diet of individuals in America has resulted in a diminution in the incidence of infections.^{1, 2} If, on the other hand, the diet is deficient and tissue changes occur, then they are rendered more susceptible to infection and they may be prevented or caused to disappear by administering large amounts of Vitamin A.

Vitamin B Deficiency

This is a complex substance containing several different fractions. The pathologic lesions produced

*Read at the meeting of the Rhode Island State Medical Society, June 6, 1935.

by an absence of vitamin B₁ or B₂ together with the clinical manifestations and the conditions in which they are observed are summarized in Tables 3 and 4. For purposes of discussion they can be divided into three main groups: (1) cases with polyneuritis, (2) those with cardiac insufficiency, (3) those with pellagra.

Polyneuritis

There is nothing characteristic about the polyneuritis that occurs in vitamin B deficiency. From the table, it is obvious that polyneuritis resulting from vitamin B deficiency may occur in a variety of conditions. The importance of the lack of vitamin B in the development of polyneuritis in chronic alcoholism has recently been emphasized by Minot, Strauss and Cobb³, and the role of the gastrointestinal tract in conditioning the various clinical manifestations of vitamin B deficiency has been presented by Strauss.⁴ Once the neuritis becomes established, it may require at least six to eight weeks of vigorous treatment before improvement results.

Cardiac Insufficiency

There are few other types of heart failure than that due to vitamin B deficiency in which dramatic results may be obtained if adequate treatment is established early. Several years ago I had an opportunity of studying a few of these patients.⁵ The characteristic features were as follows. Patients who had been on inadequate diets complained of palpitation, exertional dyspnoea and edema. Sometimes these symptoms were preceded by pains in the calf muscles. If they were seen early in the course of the illness, the heart rate was usually accelerated. The blood pressure might be normal and there were no consistent or conspicuous changes in the peripheral vessels. The heart was enlarged both to the right and to the left of the mid-sternal line; the apex beat was diffuse and not forceful. There was usually a systolic murmur over the pulmonary area and the pulmonary second sound was accentuated. The lungs did not show signs of congestion and the liver was not enlarged. There was usually edema of the lower extremities.

As the disease progressed, all these signs became exaggerated; the edema increased; the liver became enlarged and nausea and vomiting sometimes appeared. Striking changes occurred in the peripheral circulation. There might be increased peripheral pulsation of the vessels in the neck and extremities, with a collapsing type of pulse and capillary pulsation. The sounds over the brachial and femoral

arteries were increased. The heart was enlarged with a systolic apical thrill, and loud systolic murmurs appeared over the mitral and pulmonary areas. The rhythm, however, remained regular and the common arrhythmias did not occur. Teleoroentgenograms of the heart revealed enlargement of the right auricle and the right ventricle, with a prominent pulmonary artery and a prominent superior vena cava. The electrocardiograms did not show anything characteristic. The voltage might be low or high. Minor abnormalities, such as changes in the T waves, might be present.

All these conditions might occur in the cardiovascular system with slight changes in the nervous system. The latter generally consisted of minor sensory disturbances and a loss of the knee and ankle jerks.

When the patient was treated with rest in bed and an anti-beriberi diet supplemented with yeast, pronounced changes occurred. The heart rate fell, the blood pressure became normal, the peripheral pulsation and the collapsing and capillary pulse disappeared, diuresis set in, the heart became smaller, the murmurs disappeared and the patient became normal. The deep reflexes did not reappear until many weeks after the cardiac signs disappeared.

This condition might be confused with protein deficiency since edema is a striking feature of both. However, the plasma proteins in this type of heart failure are normal⁶ in amount whereas in protein deficiency they are reduced. In uncomplicated protein deficiency there are none of the signs of heart failure which are so outstanding in these cases.

Pellagra

In spite of the fact that considerable difference of opinion continues to exist regarding the precise cause of pellagra, it is generally agreed that in the main it results from a food deficiency. There is additional evidence that this deficiency is closely related to one of the fractions of vitamin B since the use of large amounts of material containing vitamin B is frequently followed by a disappearance of the clinical features of the disease. It can not be emphasized too strongly that the clinical picture may vary from time to time in its different manifestations. The lesions of the skin may be influenced by light whereas the other features may continue after the lesions of the skin have disappeared. The various features are summarized in Table 4.

Vitamin C Deficiency

With the discovery of the active principle of vitamin C, cevitamic acid, there has been increased interest in this disorder and efforts have been made to widen the scope of the diagnosis of vitamin C deficiency. From clinical and experimental observations alone we are accustomed to look upon vitamin C deficiency as resulting in: (1) Increased capillary fragility and permeability. (2) Disordered blood formation. (3) Fragility of bones. Thus it is seen that a wide variety of symptoms and signs may arise during the course of vitamin C deficiency.

Within the past few years efforts have been made to define a condition referred to as latent vitamin C deficiency. This condition has been suggested by Mettier and Rinehart⁸ to be of importance in the pathogenesis of conditions such as rheumatic fever and rheumatoid arthritis⁹. For the present, it cannot be said that the evidence for a quantitative deficiency without manifest lesions of scurvy is of importance in predisposing individuals to various diseases. It is a subject of great importance, however, and the future work of many investigators in this field should provide us with information regarding latent vitamin C deficiency.

Vitamin D Deficiency

During adult life vitamin D deficiency is uncommon except under the circumstances summarized in Table 5. The condition is seen, of course, most frequently during the period of active growth in childhood since without growth there can be no rickets. In adults, osteoporosis or malacia arises under circumstances that interfere with the absorption of calcium or vitamin D or in the rare instances in which there are such increased demands made upon the organism for calcium that osteomalacia develops.

Protein Deficiency

The diagnosis of protein deficiency or malnutrition edema can be made from the presence of edema, without albuminuria or the signs of heart failure, when the total plasma proteins are reduced below 5 gms. per 100 c.c. The clinical conditions in which it has been observed are summarized in Table 6. The edema may be confined to the legs, the legs and genitalia, or it may be generalized. In 12 marked cases that I studied several years ago ascites was present in six and pleural effusion in four. The blood pressure was not elevated, the heart was normal in size and there were no changes in the electrocardiogram.

Following the ingestion of large amounts of protein, the blood proteins return to a normal level and the edema disappears. To obtain this effect it is much better to use animal protein rather than that derived from vegetables.

Anemia as a Deficiency Disorder

It is now generally recognized that pernicious anemia is a deficiency disorder which develops in most instances as a result of deficient gastric function (Castle). Related macrocytic anemias such as are seen in some cases of sprue and pregnancy also result from a deficient gastric function or from a lack of hemoglobin and red blood cell building stores in the diet. These macrocytic anemias can be treated adequately with liver extract.

The microcytic, or hypochromic anemias, occurring during the course of certain conditions such as hookworm infestation, chronic blood loss and "idiopathic" hypochromic anemia can be adequately treated with iron.

There are other conditions in which anemia occurs and the evidence that it is due to a deficiency of substances which are necessary for blood formation is convincing. I have observed anemia frequently in patients with deficiency disorders and Mettier, Minot and Townsend⁷ have shown conclusively that anemia associated with scurvy can be due to a lack of vitamin C.

The various conditions in which a deficiency of materials necessary for hemoglobin and erythrocyte production are of importance in the development of anemia are listed in Table 8. It is plain that anemia is observed under the same circumstances as proved deficiency disorders and in many such cases recovery follows the addition of substances to the diets which are necessary for blood formation.

Summary

From this discussion it is self-evident that deficiency diseases can arise in adults in several ways. Their clinical features are varied and widespread. The recognition of deficiency disorders allows one to treat patients adequately. An appreciation of the circumstances in which they are seen enables one to prevent them.

TABLE 1
VITAMIN A DEFICIENCY

<i>Pathologic Lesions</i>	<i>Clinical Manifestations</i>	<i>Conditions in Which It Is Observed</i>
Keratization of Epithelial Conjunctivae Cornea	Night Blindness Xerosis Conjunctivae Xerosis Corneae Keratomalacia	Restricted Diets Chronic Dysentery Diabetes
Lachrymal Glands	Diminution Tear Secretion	Celiac Disease Tuberculosis of Intestine
Parotid Glands Mouth	Xerostomia Xerostomia	Ulcerative Colitis
Trachea & Bronchi	Leukoplakia Bronchitis—Tracheitis Bronchiectasis—Pneumonia	
Intestine Genito-Urinary Tract	Ulcerative Colitis Cystitis Urolithiasis	
Skin	Hyperkeratosis Follicularis	

FOODS CONTAINING VITAMIN A	
Butter, cream, whole-milk.	Brains, kidney.
Whole-milk powder.	Cabbage (fresh—dried).
Whole-milk cheese.	Carrots, chard, lettuce.
Cod-liver oil, eggs.	Spinach, sweet potatoes.

TABLE 2

<i>Changes in the Epithelial Tissues of:</i>	<i>Secondary Infections</i>
Eyes	Conjunctivitis Hordeolum Meibomitis
Mouth	Stomatitis
Lungs	Bronchopneumonia Bronchiectasis
Intestine	Ulcerative Colitis
Urinary Tract	Pyelitis Cystitis
Skin	Furuncles Pyodermia

TABLE 3
VITAMIN "B₁" DEFICIENCY

<i>Pathologic Lesions</i>	<i>Clinical Features</i>	<i>Conditions in Which It Is Observed</i>
Central Nervous System Lesions	Abducens Palsy Facial Paralysis Recurrent Laryngeal Paralysis Retrobulbar Neuritis Combined System Disease	Restricted Diets Chronic Dysentery Diabetes Chronic Alcoholism Hyperthyroidism
Peripheral Nerves	Peripheral Neuritis	Celiac Disease Ulcerative Colitis Gastroenterostomy
Heart Muscle Lesions	Cardiac Insufficiency	Stricture of Sigmoid Excessive Vomiting of Pregnancy Chronic Jaundice Post-operative Pyloric Obstruction

FOODS CONTAINING VITAMIN "B₁"

Yeast (brewers').	Cotton seed, peanuts, bread.
Yeast cakes, yeast extract.	Cabbage, carrots, celery.
Whole-milk, whey.	Cauliflower, onions.
Milk powder	Parsnips, potatoes.
(whole and skimmed).	Peas (fresh), spinach.
Nuts, cereal (corn-embryo, wheat-embryo, wheat-kernel, rice (unpolished)).	Rutabaga, fruit, grapefruit.
Beans (kidney, navy, soy).	Orange, lemon, tomato, raisins.
	Liver extract.
	Bananas.

TABLE 4
VITAMIN "B₂" DEFICIENCY
PELLAGRA

<i>Pathologic Lesions</i>	<i>Clinical Features</i>	<i>Conditions in Which It Is Observed</i>
C. N. S. Lesions in Posterior Lateral Columns	Peripheral Neuritis Combined System Disease	Inadequate Diet Carcinoma of Stomach Carcinoma of Ileum Tuberculosis of Intestines
Peripheral Nerves		Chronic Dysentery Stricture of Rectum Carcinoma of Colon Ulcerative Colitis Pernicious Anemia Chronic Alcoholism Stricture of Esophagus Pyloric Obstruction Gastro-Enterostomy Stenosis of Small Intestine
Atrophy and Inflammation of Gastro-Intestinal Tract	Sore Tongue Diarrhoea Psychoses	
Sensitization of Skin to Light and Irritation	Dermatitis—Exposed or Irritated Parts of Body	

TABLE 5
VITAMIN C DEFICIENCY
Active Principle: Ascorbic Acid C₆H₇O₆
Cevitamic Acid "Cebione" (Merck)

<i>Pathologic Lesions</i>	<i>Clinical Features</i>	<i>Conditions in Which It Is Observed</i>
Increased Capillary Fragility and Permeability	Hemorrhages into Skin Muscles Sub-periosteum Joints Gums, if traumatized Internal Organs Intestinal Bleeding Hematuria Pericardial Effusion Peripheral Edema Anemia	Restricted Diets Pernicious Anemia Chronic Dysentery Pernicious Vomiting of Pregnancy Hyperthyroidism Hemochromatosis
Disordered Blood Formation		
Fragility of Bones	Fractures	

FOODS CONTAINING ABUNDANT AMOUNTS OF VITAMIN C

FRUITS: Orange, lemon, tomatoes (canned).
Tomato (fresh), grapefruit, limes, apples.
VEGETABLES: Spinach, lettuce, cabbage (raw).
Peas (fresh), onions, carrots, cauliflower.
Potatoes (to a less extent).
Whole-milk (to a less extent).

Liver.

TABLE 6
VITAMIN D DEFICIENCY

<i>Pathologic Changes</i>	<i>Clinical Features</i>	<i>Conditions in Which It Is Observed</i>
Disturbed Absorption of Calcium and Phosphorus	Rickets Osteoporosis Osteomalacia Tetany Fracture of Bones	Inadequate Diet Spine Malabsorption of Fat Pregnancy Lactation Celiac Disease Chronic Jaundice External Biliary Fistula Hyperthyroidism

FOODS CONTAINING LARGE AMOUNTS OF VITAMIN D (CALCIUM AND PHOSPHORUS)

Cod-liver oil.	Wheat (the entire grain), flour, oatmeal, polished rice.
Egg yolk.	Dried beans and peas.
Whole milk.	Green vegetables (beets, carrots, parsnips, turnips, potatoes).
Butter fat.	Fruits (apples, bananas, oranges, pineapples, dried prunes).
Green vegetables.	Nuts (almonds, peanuts, walnuts).
Milk.	
Eggs.	
Soft tissues and fluids of all animals, skeleton and teeth of animals.	

TABLE 7
PROTEIN DEFICIENCY

<i>Pathologic Lesions</i>	<i>Clinical Features</i>	<i>Conditions in Which It Is Observed</i>
Decreased Total Plasma Proteins	Edema	Inadequate Protein Intake Chronio Diarrhoea Pernicious Anemia Diabetes Mellitus Pregnancy Lactation Pellagra Celiac Disease Chronic Alcoholism Cirrhosis of Liver Cardiac Insufficiency Following Operations Blood Loss Chronic Nephritis
Decreased Basal Metabolism Rate	Bradycardia	
Decreased Blood Fibrinogen	Purpura	
Fatty Degeneration of Liver		

Milk, cheese (especially skim-milk cheese).	Bread, breadstuffs (crackers, pastry, macaroni, cake).
Eggs.	Beans, peas, lentils.
Meat (lean meat in particular).	Cotton seed.
Poultry, game.	Nuts.
Fish.	Gelatin.
Cereals, corn, wheat, rye, oats, etc.	

TABLE 8

CONDITIONS IN WHICH NUTRITIONAL DEFICIENCY IS A FACTOR IN THE PRODUCTION OF ANEMIA

Hyperchromic Anemias Improved With Liver Extract:

1. Pernicious Anemia.
2. Anemias of Sprue.
3. Pernicious Anemia of Pregnancy.
4. Multiple Strictures of the Intestine.

Hypochromic Anemias Improved with Iron:

1. Hookworm Infestation.
2. Chronic Dysentery.
3. "Idiopathic" Hypochromic Anemia.
4. Anemia of Pregnancy.

Miscellaneous Anemias:

1. Scurvy—Improved with Vitamin C.
2. Avitaminosis Associated with Anemia.

MATERIALS NECESSARY FOR HEMOGLOBIN AND RED BLOOD CELL REGENERATION

Lean Meat. Liver and Other Glandular Organs, Apricots, Peaches, Apples, Prunes, Greens, Iron.

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THE NEW DEAL IN MEDICINE

By MALFORD W. THEWLIS, M.D.

WAKEFIELD, R. I.

Perhaps physicians have been slow to realize that the old conditions under which they practiced before the economical crisis are ended. It will be well to get ourselves out of the "wishing" stage and face actual facts. The address of Dr. McLester, president of the American Medical Association, was constructive. The New York County Medical Society is now sending out questionnaires to its 4,000 members asking them to sign up if they wish to take care of clinic cases in their offices for \$1.00 and make outside visits to them for \$2.00. Specialists are to state if they will accept a \$5.00 and \$10.00 fee from patients whose circumstances warrant special consideration.

This is an organized effort to attack the clinic problem—to give patients a chance to get medical attention from private physicians. It is expected that one-half of the members will sign up. We did not anticipate the coming change and unconsciously drove patients to clinics. We see clinic patients who can afford a minimum fee in a doctor's office.

There are so many people—teachers, artists, etc., in New York—who cannot afford to pay Park Avenue fees, who are forced to go to pay clinics.

One such case came to the writer's attention: A New York specialist had to move to a western town, and the very artist, who could not afford his fee in the city and who was forced to go to a clinic, had friends in that town and happened to have made it a point to recommend the specialist to them, thus giving him a start in a new location.

There are many patients who will go from one druggist to another, buying up all the clerk recommends, rather than go to a doctor's office. But if we are willing to experiment and give temporarily embarrassed patients the privilege of reduced fees until their circumstances are improved, they will come to you whenever they need attention.

Such a plan takes part of the burden off the clinics: \$1.00 and \$2.00 fees, and \$3.00 and \$5.00 fees for specialists (office and home visits), for those who cannot afford to pay more. This would give the working man a chance. Operations could be reduced in the same way, and X-rays and X-ray treatments could be reduced to clinic rates. Remember, too, that those who are financially handicapped now may be in better circumstances some day.

We have made patients hospital-minded. What has happened? The hospital gets all the patient has (which, unfortunately, may not be much, for the hospitals are as badly off as physicians) and nothing is left to pay the doctor.

Physicians might reasonably object to such plans as "the 3-cent a day" hospital project that does not include a physician's fee. Since the success of the hospital depends upon the physician who sends his patient there, the time may come when any hospital plan will include the doctor's fee.

It is time to act. Let medical societies everywhere attack the clinic just as the New York group has. (The word "attack" is used to combat an economic problem.) No physician will ever lose anything by seeing those less fortunate at reduced fees, even though some would abuse the plan, just as they abuse the clinics.

Some plan of social security must be accepted, and none could be complete without the physician being included in it. The United States is twenty years behind other industrial nations in planning some national security system—against "the major hazards and vicissitudes of life." Physicians will only be included in the picture if they insist upon it; there should be organized effort in this direction.

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EDITORIALS

UNDULANT FEVER

Two more cases of undulant fever reported—35 reported to the Department of Health in the past six years and all except one have been traced to milk, according to Dr. Grover.

While this is no cause for alarm, it is another warning that something should be done about it. The New York Sanitary Code demands that by January 1, 1936 that all milk sold shall be from cows free from abortus infection. We should do the same, and now.

It really is not asking too much to have State protection in this matter as well as against tuberculosis. Excellent results have followed the campaign against tuberculous cattle. The next step is to eliminate Bang's disease.

If a reasonable date is given it will not cause any unnecessary suffering for the farmer. It will be the best thing for him, too, for diseased cattle are a liability.

And now's the time to act when the Government is paying a reasonable sum for condemned cattle. In fact, a farmer can get enough for condemned cattle to purchase others that are free from disease.

Action is needed. Who will do it? It's time some one moved. Stagnation in rural health matters has always been Rhode Island's misfortune. Will some one get us out of our lethargic state? There is a great deal to be done in these areas and apparently no organized plan to attack the problems. The State Board of Health is powerless to act—there must be new legislation.

The public is getting wise to the fact that pure milk costs no more than an inferior product.

If the State doesn't care to attack the question, then we should have a law requiring that milk, butter, cheese, ice cream should be pasteurized. Most authorities seem to agree that pasteurization does not damage these food products.

OF DUMPS

Sometimes they are made manifest by unsightly presence, sometimes by the unsavory odor that assails the nose, their malodorous fragrance being evident for miles to leeward of the smouldering flames. The disposal of rubbish has always been a problem and it would seem that we are still far from its solution. Much of it is highly combustible yet the town dump continues along old established lines. This seems to be due to the fact that those who operate dumps fail to realize that flame burns upwards and not downwards. It is customary at dumps to dump the stuff and hope that it will burn. A solution of the problem might in part be obtained by the construction of gratings upon which the refuse might be placed with provision of suitable draught from below. Such an arrangement would be easy and economical of construction and those who know something of the nature of flame believe that it would work. This is respectfully offered for the consideration of Pawtucket and Allen's Ave. and Ricker's Island where the smoke may be observed extending for miles. Any combustion will smoulder if it is deprived of oxygen. We too smoulder and die if we are similarly deprived.

OUR ANNUAL MEDICAL MEETINGS

This year's innovation in the provision of a two day session for the Rhode Island Medical Society annual meeting proved to be a great success and the Officers and Committees that sponsored it are deserving of congratulations. The papers were

diversified, short, to the point, and well received, and the program schedules were carried on with commendable promptness. The meetings were characterized by an *esprit* and enthusiasm that savored of a much larger organization and a National Medical Convention. The commercial exhibits seemed to arouse great interest in new preparations, products, and apparatus, and it is to be hoped that the commercial returns have been sufficient to encourage more and equally attractive exhibits next year.

In regard to the Annual Dinner, however, the serious minded, educated Doctor of Medicine should realize that there is a time and place for everything, and "Side shows" of inappropriate enlivenment which are not on the program are not enjoyed. Moreover the possible serious damage to glass, china, linen and furniture belonging to the Squantum Association (should it occur,) would be rather poor thanks for the courtesy of that club in allowing us to use and enjoy their unexcelled facilities.

Not the least to be considered, also, is the lack of consideration for the Guest Speaker with the attendant embarrassment to those who have invited him to address us. It does not seem too radical to suggest that a change of policy should be instituted at these annual dinners looking to greater decorum. Certainly, something should be done to guard the interests of the great majority of Doctors who attend these functions and who desire to give attention to the speaker undistracted by extraneous entertainment.

NOISE

It is gratifying to know that this column in this JOURNAL antedates by a good many months discussion on the harmful effects of noise upon the health and urges the need of the preservation of eight to ten hours of quiet for restful and uninterrupted sleep. Recently, however, the lay press has won confidence and commendation by frequent articles upon the subject. For it is only by repetition that we learn. Once is not enough, it must be rubbed in lest we forget.

We do not need to make a medical matter out of what is a hygienic truth. But we too need to be occasionally reminded of the importance of regular sleep and enough of it. Much disturbing noise is unnecessary and absurd. Steamboat, railroad whis-

bles and automobile horns are far more loud than they need be. There is no reason why five blasts of a steam whistle backed up by 140 pounds pressure should be used to call a flagman a few feet away. The pneumatic whistles on electric cars can be heard for over four miles. Occasionally one may hear a steamboat whistle sounded thirty times and such a whistle may be heard for six or eight miles. There is no need that an automobile horn should frighten one. Many of them are unnecessarily loud. But here we differ from many writers. Auto horns are a necessity. Even at the "stop" intersections it would seem that safety demanded a short signal. This writer would have been dead many years ago did he not toot his whistle at corners of this city which everyone knows are dangerous. Rarely is his toot answered, but the other fellow often slows down too. We need more sounding of auto horns rather than less, but it should be with horns of less volume. Rarely do street cars sound their bells which err in that they have not sufficient volume and cannot be heard. But for the most part we are using a sledge hammer to drive tacks. During the hot season when windows must be open, the city is bedlam. We submit that properly pitched horns of not more than 40 decibels of intensity are quite enough for public and private safety and that such equipment should be standardized by law and provided by the makers of automobiles and not changed by the whim or fancy of the owner. Not long ago a committee of medical men was formed for the purpose of investigating and suppressing unnecessary noise. We now call upon that distinguished committee to resume activities and continue its good work.

NOTICE

AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

THE DOCTOR AS A HEALTH EDUCATOR

By W. W. BAUER, M.D.

*Director Bureau of Health and Public Instruction
American Medical Association*

CHICAGO

A good deal of comment has appeared in medical publications during the last few years dealing with the physician and his relation to public health education. Much of this material might convey the impression that the physician as a health educator is a novel phenomenon when, as a matter of fact, the medical activity of today, looking toward instruction of the public, is merely a reawakening and not an initial incursion into a new field.

The doctor has been a health educator ever since there were doctors, at least until the time when changes in medical practice, consequent on a changed community life in America, began to crowd the family doctor out of the picture in favor of the specialist. The family doctor felt it his duty to instruct his regular patients about such matters as smallpox vaccination and other necessary steps to preserve their health. It is true that he did not promote the conception of the periodic health examination as we know it today, but he did encourage his patients to keep in constant and friendly touch with him and to confide in him matters touching on their health. His relationship was informal but effective. Even in the face of official endorsement of the periodic health examination by a number of organizations, including the American Medical Association, there are many who hold that the less formal but more intimate relations between the old family doctor and his patients were more desirable and effective than are the practices that are advocated today.¹

In the midst of great and sometimes perplexing changes in the nature of our community organization changes are taking place in medical practice. It is interesting to note that these changes are in the direction of returning to the physician some of the functions which he used to exercise in simpler times but which have been taken over by boards of health and voluntary organizations of one kind or another. The doctor is beginning to interest himself anew in problems of public health and health education. Those who have not troubled to acquire historical perspective are prone to consider that the doctor is making a new incursion into unfamiliar fields when as a matter of fact history shows very

definitely that in many a state, city and county, public health work was initiated as a result of demands made by public spirited physicians, either individually or as groups. It is therefore of special interest at this time to see what medical societies in various parts of the United States are doing in relation to public health and health education.

"The public has a right to know certain things about itself. Of vast importance to every man or woman is his or her state of health. It affects his or her life expectancy and determines his or her ability to make plans for the future. Every plan that may be made can be utterly destroyed if health or life is lost."

These words, written by Thurman B. Rice of Indiana, will be found in the January 1934 issue of *The Journal* of the Indiana State Medical Association. They express briefly and forcefully the right of the lay public to ask questions about matters pertaining to health. Dr. Rice holds that this right is not debatable. I agree with him. What is debatable is how the public shall be taught about health, by whom it shall be taught, and how much it shall be taught.

A short time ago, a physician wrote to *Hygeia* in response to a letter suggesting that *Hygeia* on his waiting room table would be an excellent way to give his patients a better appreciation of matters relating to health and disease. He replied that under no circumstances would he consider having such a magazine where his patients could get it. He had formerly kept a copy in his waiting room, and the result had been that patients had asked him questions which he did not wish to be bothered answering, and which he said were none of their business anyway. It is not difficult to understand his point of view. Letters constantly coming to my desk asking questions about health, make the most astounding claims to possession, by lay individuals, of knowledge which physicians do not have. Not only do ignorant persons offer to teach doctors how to cure any of the incurable diseases with "something to rub on the back," but they calmly state that their doctors appear to know nothing about a certain subject, whereas they have read in an article somewhere, and so on ad nauseum. Such letters are irritating; such patients must be even more irritating to one who is compelled to tolerate them in the flesh. Nor is this attitude confined to the ignorant and the unintelligent. Within the month a letter has come from a reference librarian in the

state of Indiana, from which I quote as follows:

"One of our patrons has asked me for all material available in our library on rheumatism and arthritis . . . Local physicians have not given this patient any help whatever, and as her means are limited, she is doing all that is possible to diagnose her own case and in some way cure her affliction."²

Early in 1934 a questionnaire was sent to the secretaries of state medical societies, asking them certain questions about the organization of their state society in connection with public health and health education, and also requesting that they name the county medical societies which in their judgment were doing most along similar lines. Approximately 250 counties were named and to these the Bureau of Health and Public Instruction added the names of such counties as were known through correspondence or other contacts to be active in health education or participating in public health effort.³ Eliminating duplications, a total of 271 county medical societies were sent questionnaires and of these questionnaires 200 were returned. The facts I am going to cite now are gathered from these questionnaires.

As a basic necessity for participation in community health activities by county medical societies it seems that a committee on public health, health education, public relations, or any other name is required. The answers to our questionnaire indicated that 151 medical societies, or 76 per cent of those answering, have such committees. In some of the larger societies these committees are subdivided so that there are separate committees for public health or health education. In some societies the functions are allocated to the committee on medical economics, while in other societies the officers function in the capacity of such a committee.

Another question inquired as to the existence of a health council in the community. This question, it appears, was frequently misinterpreted. Answers were received in the affirmative which were explained by saying that the health council was a board of health or health committee on the City Council, or some other governmental agency. This is not a health council. A true health council is an advisory board consisting of representatives from organized medicine, organized dentistry, city or county health department, school medical department if any, and such voluntary organizations and social service organizations as are active in the community and choose to be represented. In one or two

instances positive statements were received to the effect that health councils are not desired because there is already too much lay domination of public health work. A properly organized and properly functioning health council does away with most of the objectionable features which arise from inexperienced lay control of public health activities, because it makes readily available medical advice and guidance in the furthering of community health projects which are commendable and also makes possible swift and effective mobilization of medical opinion with relation to health projects proposed which ought to be discouraged. From many societies come strong expressions of approval of the principle of participation in community health activities by the county medical society through the instrumentality of a community health council. The questionnaire showed that 96 communities, or 48 per cent of those from which answers were received, had community health councils and 85 of these health councils are in communities where the county medical society also has a committee on public health or health education. Only 69 societies which have the opportunity of participating in health councils are doing so, which seems to indicate that opportunities for co-operation may in some localities be missed, though it is, of course, not to be forgotten that situations may exist where participation by the medical society in a community health council may be of doubtful wisdom.

The 200 replies received indicate that 28 county medical societies are occasional users of the radio, while 45 are using the radio regularly. Some interesting reactions were brought forth in this connection. There were some who endorsed the use of the radio practically without reservation; some considered it of doubtful value because using it puts the medical profession in a class with quacks and radio advertisers; a few stated that health talks are useless, but that the radio should be used for propaganda; by most of those using it and by many not using it, the radio was regarded as a valuable means of disseminating health information and the opinion was expressed that the medical profession ought not to overlook its possibilities.

While the radio is available only to certain county societies, the organization, either formally or informally, of a speakers' bureau is possible almost everywhere, and yet only 61 of the 200 societies answering the questionnaire had taken steps to make speakers on health and medical topics

available to lay groups in their counties. It does not make a great deal of difference whether there is a formally organized speakers' bureau or not, if the community knows that the county society may be called upon for speakers who will furnish information.

Another medium of health education is the press. The doctor's traditional aversion to publicity seems accurately reflected in a report of only 20 per cent of county medical societies answering the questionnaire who make use of newspaper releases. In a number of instances the comment was added that this "deserves consideration," but it would appear that the medical profession is not taking advantage of the opportunity ethically to use the newspaper as a medium of health education. Editors as a rule are glad to get health news because real health news is always live news. They do not want propaganda and they are lukewarm about purely educational matter. Yet it should be possible in almost any community to make good use of newspaper releases which can be furnished from the American Medical Association headquarters through the *Hygeia* clip-sheet, upon request to the Bureau of Health and Public Instruction.

An item of great interest because of its importance and the fact that it has been so largely overlooked, was touched upon by a question asking what interest, if any, was being taken in co-operating with local libraries to be sure that the books offered the public for health reading are authentic and reliable, or at least that if the unreliable must be tolerated, the good and reliable are not crowded off the shelves. In only 5 per cent or 10 counties answering was any attention being paid to this important matter and of these one county accidentally had a favorable situation because the librarian was the relative of a physician, and in another county the auxiliary was taking an interest in this vital matter. The question of health books in public libraries deserves more attention. There is not much use in continuing health education activities as long as misinformation and correct information appear side by side on library shelves and the unsophisticated layman is left to make his own choice, if he can.

Of the 200 societies answering, 50 per cent had organized auxiliaries and 32 per cent had active auxiliaries. In other words, two-thirds of the organized auxiliaries are active. Their activities range through a wide gamut from purely social

through cultural, community relations, health education, sewing for hospitals, library studies, *Hygeia* subscription promotion, to medical scholarships, loan funds for students and community charities or social service.

Next we asked questions dealing with the participation of county medical societies in disease prevention and health promotion activities commonly undertaken by health departments. Anyone who is familiar with the situation in most counties will be inclined to consider that our replies indicate a rather liberal conception of what constitutes medical society participation. On the one extreme we have a situation such as that in Wayne County, Michigan, including the city of Detroit, where diphtheria immunization, smallpox vaccination, examinations for tuberculosis and food handlers' examinations are being done by the family doctors in co-operation with the health department. This constitutes genuine medical participation. We have, on the other hand, the passive types of participation in which the doctors endorse the activities of the health department and if a patient should happen to demand immunization of some sort refer the patient to the health department. To the extent that this is not obstruction this may be called participation, but it is certainly not active, nor is it highly constructive. Another type, which we presume prompted affirmative answers to our questions, is that where individual physicians, often community leaders, participate actively as individuals, the county medical society permits itself more or less to get credit for the community leadership thus displayed by its individual members. Our answers in most instances do not accurately reflect the precise type of local co-operation and therefore it is suggested that the percentages to be named be regarded as liberal rather than as conservative estimates. The truth probably is that in most instances we have tacit acquiescence in activities of organized health departments, or activities by individuals, and only in relatively few instances a real participation by the local medical profession as a unit in public health endeavor. Needless to say, it is only such integrated group participation that will ultimately return to the medical profession, where it belongs, the performance of smallpox and diphtheria immunizations, of pre-school examinations, infant health supervision, school health examinations and the periodic health examination.

According to our records, and bearing in mind the limitations just discussed, we find exactly 50 per cent of the 200 answering societies regarding themselves as participants in immunization against smallpox; 57 per cent in diphtheria immunization; 50 per cent in pre-school examinations (largely the Summer Round-Up of the Parent-Teachers); 47 per cent in school health work; 34 per cent in tuberculin testing of children; 36 per cent in infant health programs, and 34 per cent in the periodic health examination.

As a sort of general barometer of medical relations with the public in a given community, the question was asked, whether the medical society, as such, was customarily consulted by other community groups with relation to activities related to public health. In 66 per cent of answering societies the answer was in the affirmative and in a number of instances comments were added to the general effect that the more interest the medical profession as a unit showed in the community, the more consideration the community was likely to give to the medical profession. One is tempted to remark that such a thoroughly human reaction might easily have been anticipated without the aid of questionnaires, yet it is of interest and importance to note the specific responses in support of the following conclusions, namely:

1. That it is desirable for a medical society to have a committee on public health or health education, or both, or at least to have the functions of such a committee definitely allocated to certain individuals.
2. That under most circumstances a community health council offers opportunity for instructive interchange of viewpoints and constructive development of community program.
3. That under most circumstances the county medical society may participate in a community health council with mutual benefit to the community and the medical profession.
4. That the radio, the public speaker and the press are useful media of health education when judiciously employed by local medical societies.
5. That a profitable activity would be the making of library studies and the offering of advice to librarians with respect to differentiation between medical literature which is authentic in character and that which is not.
6. That auxiliary groups have interested themselves in a wide range of activities and have made

definite and valuable contributions to the effectiveness of medical organization and to the relationships between the medical profession and the public.

7. That in a few outstanding instances there has been real and constructive co-operation developed between public health officials and the medical profession with respect to disease prevention through immunization and health promotion activities, but that for the most part a great deal more needs to be accomplished along this line and that in most communities both public health officials and the medical profession need to know each other better and improve their mutual appreciation of their common problems.

8. That in spite of the tumult and shouting about public loss of confidence in the medical profession it is possible for a considerable percentage of county medical societies to report that the community looks with confidence upon its doctors in their county organization as it has looked upon them with confidence as individuals for the solution of problems relating to the community health.

BIBLIOGRAPHY

1. "The Function of the Physician in Public Health Education," by W. W. Bauer, M.D. Reprinted from the proceedings of the Annual Congress on Medical Education, Licensure and Hospitals, Chicago, February 12 and 13, 1934.

2. "Duties of the Profession in Health Education," by W. W. Bauer, M.D. Reprinted from *The Journal of the Indiana State Medical Association*, March, 1934, Vol. XXVII, pp. 116-119.

CLINICO-PATHOLOGICAL CONFERENCE

The Clinico-Pathological Conference at the State Sanatorium was held on August 21, 1935 at 4:30 P. M.

Case histories and chest x-rays were presented, illustrating some of the forms of collapse therapy employed in the treatment of tuberculosis (pulmonary), at the State Sanatorium. These included unilateral and bilateral pneumothorax, phrenicectomy, intrapleural pneumolysis and thoracoplasty.

In addition, three case reports with autopsy findings, were presented.

Among those taking part in the conference were: Drs. J. Murray Beardsley, Alex M. Burgess, R. P. Crank, Nat H. Gifford, Lucius C. Kingman, C. A. McDonald, J. C. O'Connell and E. K. Windsberg.

CASE No. 1. White. Female. Age 25. Married. Admitted January 22, 1935. Died July 11, 1935.

Admission complaints: Productive cough, hoarseness and loss of weight for six weeks; loss of strength, fever and moderate dyspnoea for one month.

One brother died of pulmonary tuberculosis after patient's admission.

Patient appeared ill and pale. Weight, 85 lbs. Heart: a few extra-systoles and a pulse deficit. Bp. 92/64. Numerous moist rales over upper two-thirds of left lung with dullness and cavity signs at the apex. Vocal cords and aryepiglottic folds thickened and reddened. X-ray on January 24th showed the mediastinum deviated to the left. Right lung negative. Left lung showed clouding and mottling, apparently exudative in type, from apex to fourth interspace. Suggestion of rarefaction at the inner end of first interspace.

Urine—slight trace of albumen on three examinations. Blood examinations: Wassermann negative. 1/23/35 HG 85%. R.B.C. 4,520,000. W.B.C. 7,900. Differential: Stabs 16%, Segments 68%, total Neutrophils 84%, total Lymphocytes 14%, Monocytes 2%. Sedimentation rate 1st hour 22; 2nd hour 39. Sputum positive (Gaffky V to VII) 10 to 90 gms. daily.

On January 26th pneumothorax left was induced. This treatment was continued until May 31st, with about 50% collapse. An X-ray in May showed a fan-shaped exudative lesion from the 2nd to 5th ribs on the right. Course was markedly febrile with an irregular pulse rate. Pleurisy left was troublesome. Productive cough, dyspnoea, nausea after meals and anorexia, became marked during May.

On July 4, 1935, spontaneous pneumothorax occurred on the left side, relieved by means of a cannula. Died July 11, 1935, following a recurrence of the spontaneous pneumothorax.

Autopsy showed fibrous pleural adhesions, right. The left pleural cavity contained one litre of fibrino-purulent fluid, also air, with two-thirds collapse of the lung. The right lung showed marked tuberculous involvement of the upper and middle lobes with a scattered lesion in the lower lobe, chiefly in the upper third. The left lung was irregularly shaped, the upper lobe being composed almost entirely of multilocular cavities. The lower lobe was atelectatic with marked caseation, but no cavitation.

Tuberculous ulceration of terminal ileum, caecum and ascending colon; tuberculous appendicitis; cholelithiasis strawberry gall bladder and miliary tuberculosis of spleen (microscopic).

CASE No. 2. White. Male. Age 16.

Admitted August 7, 1934. Died July 26, 1935.

Admission complaints: Productive cough, fatigability, fever, loss of weight for six months, indigestion.

One brother has arrested tuberculosis.

Following hemoptysis in January, 1933, patient was at Saranac for nine months. One month after discharge, symptoms of activity occurred. On admission here, patient appeared ill. Weight 99 lbs. Abdomen flat and somewhat rigid. Heart rapid. Bp. 108/75. Numerous moist rales over the right lung with cavity signs near the apex. Moist rales over apex of left lung, posteriorly. X-ray on August 9, 1934, showed trachea deviated to the right. Right lung showed mottling of a mixed type from apex to base and an area of rarefaction 1 x 2 cm. at the level of the second rib. The left lung showed mottling of a mixed type throughout the upper three-fourths, most dense at apex and middle third.

Laboratory findings: Urine negative. Blood examinations: Wassermann negative. 8/9/34 HG 82%. R.B.C. 4,810,000. W.B.C. 12,500. Differential: Stabs 22%, Segmenters 52%, total Neutrophils 74%, total Lymphocytes 22%, Monocytes 4%. Sedimentation rate: 1st hour 21, 2nd hour 46.

Sputum constantly positive (Gaffky III to VIII) 30 to 300 gms. daily.

Clinical course showed little change from August 1934 to February 1935. August 1934 pneumothorax right was attempted. As there was only a small free space at base, it was discontinued. In August 1934 pneumothorax left resulted in about 40% collapse, chiefly in upper half of the chest.

October 1934 a right phrenic nerve "crushing" was done. After February 1935 the clinical course was progressively downhill with gastro-intestinal symptoms, namely, epigastric pain following meals and later nausea, vomiting and diarrhea.

Ultra-violet lamp treatment was unsuccessful in controlling the intestinal symptoms.

Autopsy showed obliterative pleuritis, right with tuberculous involvement of the entire right lung and cavitation of almost the entire upper lobe. Left lung, tuberculous lesions throughout, with massive caseation but little cellular exudate. The intestinal tract: acute tuberculous enteritis with ulceration of the duodenum, jejunum, caecum, ascending colon, transverse colon and appendix.

Peritoneal fluid contained numerous acid-fast bacilli.

Spleen and liver presented miliary tuberculosis (microscopically).

CASE No. 3. White. Female. Age 24. Single. Admitted March 20, 1935. Died July 17, 1935.

Admission complaints: Productive cough, hoarseness and fever for four months. Loss of weight and strength for one month. Patient appeared ill and poorly nourished. Heart sounds distant. Bp. 110/80. Left lung, few moist rales in the apex, impaired resonance of the lower half of the chest. Laryngeal mucosa was thickened and reddened.

X-ray on March 23, 1935, showed on the right, haziness and slight infiltration above the second rib. On the left, haziness with two areas of rarefaction 5 and 1 cm. in diameter above the 2nd rib. Scattered mottling from 2nd rib to base.

Urinalysis negative. Blood examinations: Wassermann negative. HG 85%. R.B.C. 4,220,000. W.B.C. 11,400. Differential count: Juveniles 2%, Stabs 25%, Segmenters 51%, total Neutrophils 78%, total Lymphocytes 17%, Monocytes 5%. Sedimentation rate: 1st hour 51c, 2nd hour 64.

Sputum constantly positive (Gaffky VI to VIII) 50 to 200 gms. daily.

Clinical course was progressively downhill. Temperature 100 to 103 in the evening, subnormal morning remissions. Pneumothorax left was begun on March 25th. On June 12th it was discontinued due to patient's poor general health and marked spread of the disease in the contra-lateral lung. Frequent pain in left chest was troublesome. Dyspnoea and slight cyanosis with increasing weakness, became noticeable about July 1st. On July 9th dyspnoea became more marked and a diagnosis of spontaneous pneumothorax right, was made. Withdrawal of air by means of a cannula gave some relief. Patient died on July 17, 1935.

Autopsy showed fibrinous pleuritis right with tuberculosis throughout the right lung, least marked in the lower two-thirds of the lower lobe. Hydro-pneumothorax left with irregular collapse due to adhesions. Three uncollapsed cavities below the adhesions and consolidation of the collapsed portion. A tear through the pleura at the apex (confirmed microscopically) producing a broncho-pleural fistula. Early tuberculous enteritis with ulceration of terminal ileum, caecum and ascending colon. Tuberculous laryngitis.

A tour of the hospital grounds followed the meeting. Much interest was shown by the visiting physicians in the new additions to the institution, now in process of erection.

Refreshments were served at the residence of the Superintendent, Dr. V. H. Danford.

Physicians desiring to receive notice of future meetings are requested to send their names and addresses to the Superintendent, Wallum Lake, R. I.

OBITUARY

JOHN W. KEEFE, M.D., F.A.C.S., LL.D.
1863—1935

Dr. John W. Keefe of Providence died at his summer home, Narragansett Pier, August 3rd. The cause of death was cerebral hemorrhage. John William Keefe was born at Worcester, Massachusetts, April 25, 1863, the son of Denis and Alice (McGrath) Keefe. His early life was spent in Worcester and after graduating from the public schools he entered upon the study of medicine at the University of Michigan, 1882 and 1883. He then went to New York and received his medical degree at the University Medical College, New York University, in 1884. He interned at Bellevue Hospital, receiving an appointment on the first surgical division. Following his graduation from Bellevue Hospital he came to Providence and established himself in general practice. He early became connected with the Rhode Island Hospital and served that institution 33 years, first in the capacity of Surgical-Externe in 1886; Out-Patient-Surgeon from 1887 to 1895; Assistant-Visiting-Surgeon

from 1895 to 1897 when he was appointed Visiting-Surgeon which position he filled for 22 years. He resigned in 1919 as Active-Visiting-Surgeon and was appointed Consulting-Surgeon.

Dr. Keefe took a very prominent part in the founding of St. Joseph's Hospital, serving as Visiting-Surgeon four years and later as Visiting-Gynecologist for ten years, retiring in 1905, and was appointed Consulting-Surgeon. He built the John W. Keefe Surgery in Providence in 1913 and conducted that institution until a few years ago, doing most of his private surgical work there.

He was one of the founders of the American College of Surgeons and of the New England Surgical Society. He was Past-President of the Rhode Island Medical Society, of the New England Surgical Society, of the New England Branch of the American Urological Association, and President (1916) and Vice-President of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. During the administration of President Taft he received a commission in the Medical Reserve Corps and during the World War served as Major in the Medical Department of the United States Army.

Dr. Keefe, realizing that a surgeon should be an anatomist, was a constant student of anatomy and devoted much time to the study of this subject. He did frequent dissections on the cadaver as well as operative surgery on animals and animal experimentation. Early in his career he saw the advantages of study in foreign clinics and made several trips to Europe to observe and familiarize himself with the surgery of the masters of his day. He was a frequent visitor to the larger and famous clinics of this country and a faithful attendant at meetings of the many surgical societies to which he belonged.

He was the first practitioner in Rhode Island to give up the general practice of medicine and confine himself to the practice of surgery as a specialty. Endowed with natural talents and those qualities which make for the successful surgeon, with an engaging personality and a constant aim to advance and achieve, Dr. Keefe's record and attainments stand pre-eminently in the history of surgery in Rhode Island and New England as well as achieving a national reputation in his chosen specialty. We think it can be safely said that the surgeons of every state in the Union knew of "Keefe of Rhode Island," of his reputation and ability and of his contributions to surgical literature. If the oft heard saying be true that "surgeons are born and not

made," it most certainly applies to Dr. Keefe, for he had in addition to an excellent training, those qualities of a deft hand with a technique of manipulation and a finesse in operating that marks the true artist in surgery, a sound judgment and the quality of decision, with the courage, ability and faith to act upon that decision.

He was the author of many essays on surgical subjects. In 1931 he presented to the Rhode Island Medical Library a collection of his essays, forty-three in number. These papers were read before the Providence Medical Association, the Rhode Island Medical Society, the American Urological Association and the New England Branch of the American Urological Association, the New England Surgical Society and the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. A perusal of these papers is valuable and very interesting, for they begin with the early history of operation for appendicitis; one paper on this subject in 1891 was the first paper on appendicitis read before the Rhode Island Medical Society and was followed by a second paper in 1894, the title of which was "Twelve Consecutive and Successful Operations for Appendicitis." This seems a small number of appendix cases to report when we compare it with the immense number of appendix cases which Dr. Keefe did in the years that followed. At the time of writing this paper, however, many of the doctors in Rhode Island were advocating the cure of appendicitis with large doses of castor oil and there was considerable controversy between the medical men and the surgeons as to the proper treatment of appendicitis. There are several of Dr. Keefe's essays which stand out as reports of pioneer work, such as a paper in 1913 on "Stenosis of the Pylorus in Infancy" with report of two cases, followed by a second paper in the same year, with report of six additional cases. The technique of the operation done by Dr. Keefe preceded the published technique of the Ramsted operation for this particular condition. In the literature of more recent years Dr. Keefe has been given credit for his priority in this operation. In 1916 he wrote a paper entitled "Sheet Rubber Superior to Gauze in Abdominal Operations." This was an original contribution to surgical technique and many surgeons throughout the country adopted this method of walling off the viscera and were enthusiastic over its advantages. In 1925 he presented a paper before the Rhode Island Medical

Society entitled "Traditions of Medicine in Rhode Island," which is a particularly valuable and interesting writing. In fact, this compilation includes so many valuable and interesting papers that one could well afford to devote many hours pleasantly and profitably in reviewing these writings.

Dr. Keefe received an LL.D. from Manhattan College, New York, in 1909, and one from Providence College in 1932. The latter college said of him in its citation:

"In Dr. Keefe, Providence College beholds a success attained through persistence in striving for professional perfection. The college would, therefore, honor such achievement for its own sake, for the sake of its inestimable benefit to the common good, and for the sake of these pre-professional students within the college who look forward to a successful career. By honoring Dr. Keefe, it would hold up an example how alone genuine professional success is secured and sustained, namely, by the ceaseless and untiring expenditure of personal effort evoked, not merely during the years of preparation, but ever afterwards, even when reputation has been made and recognition granted."

In addition to Dr. Keefe's love for his profession and his deep interest in surgery he was a student of history and a lover of biographies. He was devoted to hunting and fishing, having done considerable large game hunting in Maine and Canada, as well as fishing in those regions. Sword-fishing was one of his favorite sports and in which he indulged as late as only last year.

At the time of his death he was Consulting-Surgeon to St. Joseph's Hospital, the Rhode Island Hospital, the Charles V. Chapin Hospital, the Providence Lying-In Hospital, the South County, the Westerly, the Woonsocket, and the Pawtucket Memorial Hospitals.

In 1895 Dr. Keefe married Statia Sherman Maher of Brookline, Mass., who died three years ago. He leaves four daughters, Mrs. John A. Bolster, and the Misses Alice Sherman, Mary Ruth and Gertrude Sherman Keefe.

His reputation will endure, his memory will be cherished by his many intimate and loyal friends and by numberless patients who have received the benefits of his expert skill and his kindly ministrations.

ARTHUR T. JONES
WALTER L. MUNRO

DR. CLIFFORD H. GRIFFIN
1870-1935

Dr. Clifford H. Griffin, the son of Thomas J. and Mary R. Griffin, was born in Fall River, May 6, 1870. He died at the Jane Brown Hospital in Providence, April 1, 1935, of coronary thrombosis following a suprapubic cystotomy for vesical calculus.

Dr. Griffin came to Providence as a young man, entering Brown University in 1890, and was graduated with the A.B. degree in 1894. He received his M.D. at Harvard Medical School in 1898; served as interne at the Rhode Island Hospital from March 1, 1898, to March 1, 1900; was appointed a surgical externe July 1, 1900; later transferred to the Genito-Urinary Department, where he remained as Assistant Surgeon till 1915. During his college years he was elected to the Phi Beta Kappa, and during this time he served as teacher and later as principal of the Providence Evening High School. He was a member of the city School Committee, and served a term in the State Legislature in 1909.

Dr. Griffin's work as a doctor was largely medico-legal. Elected Police Surgeon of Providence in 1900, he held that position at the time of his death, having served continuously for 35 years. Appointed medical examiner by Governor Pothier in January, 1910, following the resignation of Dr. J. Perkins, he was reappointed in 1914, 1920, 1926, and 1932. As a result of his work in these positions he became exceedingly well known throughout the State as a medical expert, and he appeared as a witness for the State in many of its leading criminal cases. He served as medical director for the Narragansett Electric Lighting Company for many years, and later for its successor, the Narragansett Electric Company.

As medical examiner, Dr. Griffin was said by those associated with him to have been very skillful in reconstructing a crime from the medical evidence. Both in his police and corporation work he was always an earnest advocate of progressive sanitary measures for the benefit of policeman, fireman, and workers.

Dr. Griffin lived an exceedingly active life, working long hours, and taking few vacations. To his friends he often said his pleasure was in his work. He was a good student and an excellent organizer. It has been said of him that whatever he went into he would have made a success.

Dr. Griffin was a member of the American Medical Association, Rhode Island Medical Society, and Providence Medical Association. He was also a member of the University Club, and was a consultant on the staff of the Rhode Island Hospital, and a visiting physician, Department of Psychiatry, of the Chapin Hospital. He was affiliated with many Masonic bodies in Providence, and was a 32nd degree Mason.

He is survived by his wife, who was Florence M. Towle, and two children, Clifford S. Griffin and Nancy Griffin. His first wife was Celia E. Blackington, who died in New York in 1924.

ALBERT W. ROUNDS, M.D.

WILLIAM H. MAGILL, M.D.

BOOK REVIEWS

THE DOCTOR'S BILL. By Hugh Cabot. Columbia University Press, 1935. \$3.00.

Dr. Cabot's book is a clear and brief analysis of the economics of medical practice followed by a discussion of possible changes in our medical system. In addition to the main argument, the book sparkles with stimulating comments on many phases of doctoring.

Your reviewer is unable to adequately discuss the book as a whole; that would take a Chapin or Newsholme; therefore it seems better to mention some details that will entice others to read and evaluate it for themselves.

The first few chapters discuss the practice of medicine as it differs in 1930 from 1890, the general practitioner, the specialist, group medicine and the Workmen's Compensation acts. The income of physicians as in 1929 are analyzed showing that the median net income was \$3,705 which was not so bad for those above it, but not so good for the others. He insists that the community should carry the burden of the medical care of the indigent, and that until this service is paid for at a reasonable rate, "—People are estopped from grumbling at the apparently disproportionate charges which must be made to those who can afford to pay." He considers fee splitting, which is a misshapen offspring of specialization and the fee for professional services, a common and increasing evil, which the profession will destroy or which will destroy the profession.

Under the heading of the ability to pay for illness the figures show that in 1928, 16% of the families in the U. S. had incomes between 1,000 and 1,400.

The cost of medical care for such families was about \$60.00.

Although it is possible to think of such a family paying \$60 for medical care, illness is so unevenly divided that such families who have much illness in a year certainly cannot properly pay any considerable part of the expense. It seems to the reviewer that to the slightly higher income group in which charity is and should be less readily accepted the distress may be even greater.

Health Insurance in Continental Europe is briefly but clearly explained. Denmark has now a compulsory system which is the best in the world. Dr. Cabot explains the excellence of this system as due largely to three factors. Incidentally none of these factors are present in the United States. Denmark is a small country, characterized by order, relatively little poverty, and a relatively even distribution of wealth. In Denmark voluntary insurance developed gradually and into a very complete system before it was made compulsory. The third factor which is most important is that the important medical officials, like practically all European officers concerned with health, are appointed for life and entitled to a pension. This security of office encourages the development of a high type of expert without which no bearable government health insurance system can possibly exist. Under the habit practiced commonly in the United States of changing major and minor officials with the change of political parties, any compulsory health insurance scheme would be impracticable.

Dr. Cabot thinks that Voluntary Insurance on a private basis, not participated in by the government should be useful. This might include a fairly large proportion of the more intelligent and provident of the low income group. At any rate experiments along this line should be carefully watched.

Dr. Cabot is in sympathy with the report of the College of Surgeons advocating the trial of plans for prepayment for hospital care and for medical care.

The attitude of various officials of the American Medical Association and of the House of Delegates is conservative in the extreme. Various speeches and resolutions are quoted showing their disinclination toward experimentation along the above lines.

Running through the whole book is evident the basic idea that the practice of medicine among the low income group must develop, and that this development will ultimately be in the form of some prepayment plan.

To this reviewer the work seems to be a very careful, conscientious and well considered exposition of the problems of the economics of medical practice. Although isolated sentences may seem radical or startling, the whole book is sound and convincing.

REVIEW OF MEDICAL PROGRESS, 1934. By George Morris Piersol, M.D., and Edward L. Bortz, M. D. p. 1009. 112 illustrations. F. A. Davis Co., Philadelphia, Publishers, 1934.

A review of the world's literature, in alphabetical form. The subjects are well selected to cover the ground thoroughly. The index could be better arranged; the reviewer had difficulty in finding the carotid sinus reflex, for example. While the book is dated 1934, practically all the articles epitomized are taken from the latter part of 1932 and 1933. So many medical books are outdated before they are published. This book is printed on heavy paper, making a volume one and one-eighth inches thick. It could have been thinner and smaller—there is too much wasted space on the edges of the pages. The type is large. Most of the contributing board are Philadelphians—it's not a bad idea to have men from various centers. One gets the impression that the work on this volume was done by professional reviewers—the contributors make no comment on the articles. A little of their personal opinion would have made the book more valuable. However, there is no doubt that the authors put in serious work in the selection of articles and this selection makes the book worth while. In spite of what has been said by the reviewer, he feels that the book is a very convenient one to have on hand—quick reference and most everything in it. The flexible leather covers, combined with the excellent piece of printing, make it an impressive volume.

NOTICE

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

Eosinophilia in Syphilis. Spangler, *J. Lab. and Clin. Med.*, 20: 733, 1935, believes that a moderate degree of eosinophilia, especially when associated with a lymphocytosis, occurring even periodically in an apparently non-allergic person whose intestinal tract is free from ova and parasites, warrants the taking of Wassermann and a persistent search for clinical evidence of syphilis. (Also, persistent eosinophilia may suggest eosinophilic leukemia. A persistent search for clinical syphilis was the great secret of the older French schools. Dieulafoy was a master in this. It is still a delight to read his text book. Now, unfortunately, we don't search very much if the blood test is normal.—M. W. T.)

* * * *

Psychosis Associated with the Administration of Tryparsmide. Hoverson, *Am. J. Syph. and Neurol.*, 19: 217, 1935, points out that visual disturbances are not the only dangers of tryparsmide treatment. Six of his patients exhibited symptoms of a severe acute toxic psychosis. The symptoms disappeared when the drug was discontinued. (In the same journal, Kemp and Menninger report the case of a skin eruption which did not appear until after the first injection of the third course of tryparsmide. It consisted of a purple urticarial lesion just below the left eye which recurred after each injection of tryparsmide. Continuation of the drug did not cause a dermatitis in any other part of the body.)

* * * *

Absorption of Dextrose by Rectum. Collens and Boas, *Arch. Int. Med.*, 52:315, 1933, believe that a sufficient amount of dextrose can be absorbed by the rectum to warrant recognition of this method as an acceptable therapeutic procedure.

* * * *

There is an increasing tendency for iron to be diminished in diets.

* * * *

Books I have enjoyed: 10,000 Public Enemies; Skin Deep; Riding the Tiger, by Harry Carr; Nervous Indigestion, by Walter Alvarez (a masterpiece). Inflation Ahead gives some suggestions about the economic future.

* * * *

Circumcision in infancy is some protection against malignancy of the penis in later life.

Soft corns are due to ringworm.

* * * *

Metastatic Hypernephroma of Tonsil. Menger and Arons, *The Laryngoscope*, 9:748, 1934. Treated by Coutard technic of radiation (prolonged fractional dose method).

* * * *

Allergy and Immunity. Lay Martin, *Annals of Int. Med.*, 4:483, 1934, believes that allergy and immunity are separate reactions and that the former is not necessary for the action of the latter. Some method of desensitizing the body without decreasing its immunity; tuberculin treatment in the human is an example of this. If the body can be prevented from reacting in an allergic manner, that is, with edema, inflammation and tissue destruction, the infected individual will be spared much discomfort in the course of his disease, and his convalescence may take place more quickly. A definite decrease in the mortality from infections may take place.

* * * *

Transmission of Syphilis by Blood Transfusion. Jones et al., *Am. J. of Syph. and Neurology*, 1:30, 1935, state that all syphilitics, even inactive cases, are potential transmitters and even with modern laboratory methods there are syphilitic donors at large.

* * * *

Acne Vulgaris and X-rays. MacKee and Ball, *Radiology*, 3:261, 1934, state that fewer cases of acne vulgaris are treated with X-rays today than a decade or two ago, because conventional dermatological management is constantly improving. There is an increasing disinclination to travel the path of least resistance; therefore the trend should be encouraged.

* * * *

Post-vaccinal Paralysis. McAlpine, *J. M. A. S. Alabama*, 11:403, 1935, speaks of the element of danger in the administration of rabies treatment, although the Semple method seems to give a smaller percentage of cases. In 1934, 5514 Semple treatments were given in Alabama and two cases diagnosed as post-vaccinal paralysis. No record of mild accidents was filed. (The indiscriminate use of rabies treatment should be condemned. There should be some good reason for giving it.—T.)



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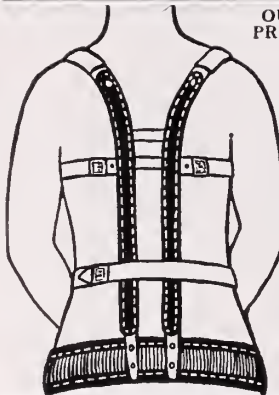


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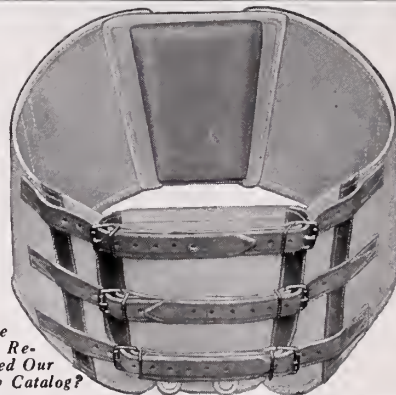
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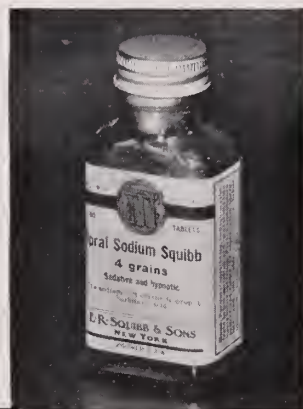
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(1) 1934, Ind. Eng. Chem. 26, 758
(2) 1932, Ind. Eng. Chem. 24, 660

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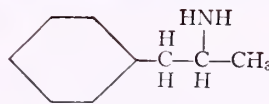
Figure 2—Time, 2:22 p. m. After using Benzedrine Inhaler.

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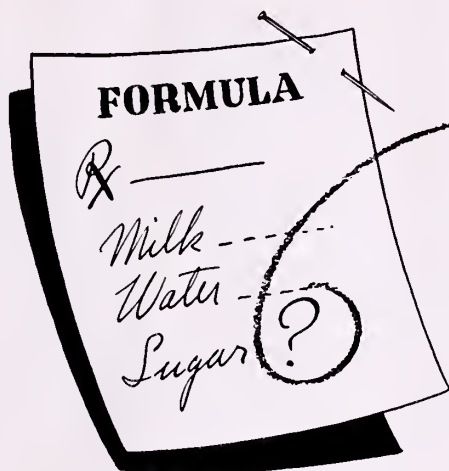
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ORIGINAL ARTICLES

APUTRID PULMONARY NECROSIS WITH REPORT OF A CASE*

By J. GREENSTEIN, M.D.
143 PRAIRIE AVE., PROVIDENCE, R. I.

Aputrid Pulmonary Necrosis was first described clinically by Kessel² in 1929. Prior to that time, the pathological features of this condition had been noted by several authors,^{1 3 4} but neither the clinical nor the roentgenological aspects had been mentioned. The term "aputrid pulmonary necrosis" was first used by Kaufman¹ in 1904. In 1907 Rosenthal³ stated that besides the ordinary terminations of lobar pneumonia in abscess, gangrene and carnification, there occasionally arises a form known as sequestration. This sequestration is a necrosis resulting from a thrombosis of the vessels supplying the affected part of the lung, with resulting anemic infarction and subsequent cavity formation.

The factors² contributing to this condition are:

1. Pulmonary compression by the pneumonic exudate;
2. Compression of the capillary bed;
3. Increased coagulability of the blood during the course of pneumonia;
4. Lowering of the blood pressure;
5. Myocardial failure with attendant slowing of the circulation.

Kessel² reported several cases which, in the course of lobar pneumonia, showed areas of aputrid necrosis within the infiltrated region. These areas of necrosis produced the picture of an abscess cavity in the roentgenograms. In none of these cases, however, were there any etiological factors commonly responsible for lung abscess aside from the pneumonia; and unlike a lung abscess there was no increased cough, foul sputum or clubbing of the fingers. In addition, the cavities healed spontane-

ously within a relatively short period of time. In short, X-ray examination of these patients admitted with lobar pneumonia showed the features of abscess cavities which produced no symptoms and which healed quickly without any treatment. Those cases in which pathological specimens were available, although the deaths were apparently uninfluenced by this condition, showed necrotic cavities without any foul odor. Microscopically the walls of these cavities showed thrombosis of the vessels and necrotic lung tissue, but no increase in infiltration over the surrounding consolidated lung—thus differing from the ordinary abscess cavity.²

The following case admitted to the medical service of the Memorial Hospital is felt to be rather typical of this condition. D.E.B., an unmarried white girl of 18, was admitted to the hospital on March 2, 1935, complaining of pain in the right chest, difficulty in breathing, cough and fever of six days duration. The onset had been rather acute with general malaise, but there was no distinct chill. Two days prior to admission, there was some rusty sputum for one day only. The family history and the past history were negative. There were no previous illnesses, accidents or operations.

Physical examination revealed a well developed, well nourished white female, moderately distressed, complaining of weakness and some pain in the right chest. There was a slight non-productive cough. The sputum was thin and scanty and had no odor. The physical findings were normal throughout except for the chest which showed some impaired resonance, bronchial breathing and increased vocal and tactile fremitus in the region of the vertebral angle of the right scapula over an area approximately $3\frac{1}{2}'' \times 3\frac{1}{2}''$. The temperature was 105 receding gradually by lysis and became normal on the 25th day. The pulse rate ranged from 90 to 120, and the respirations from 25 to 30 per minute. The blood pressure was 105/65. The laboratory findings showed: hemoglobin 92%, red blood corpuscles 4,100,000, white blood corpuscles 19,000, neutrophils 85%, lymphocytes 15%, urea nitrogen 9.34 mg. per 100 cc., creatinine 1.6 mg. per cc. and sugar 77 mg. per 100 cc., blood Wasserman negative; urine examination showed a slight trace of

*Read before the Rhode Island Medical Society, Sept. 5, 1935.

albumin, an occasional red blood cell and an occasional leucocyte, and specific gravity ranging from 1010 to 1025. There was no glycosuria and there were no casts. The electrocardiogram showed no abnormality of diagnostic significance. The sputum was thin and scanty throughout and showed pneumococcus type IV Neufeld on one occasion. At no time was there any pus or any foul odor. The blood culture was sterile.

X-ray examination on March 2, 1935, the day of admission, was reported as follows: "There is a triangular area of increased density in the periphery of the middle third of the right lung field, the apex toward the mid-line, and the base at the lateral chest wall. The lower border of this dense area is sharp and clear cut with the upper border slightly hazy. The findings indicate a lesion in the lower part of the right upper lobe near the lateral chest wall. Its pyramidal shape suggests an infarct and beginning lung abscess. The cardiac contour suggests the presence of mitral disease." (Fig. 1)

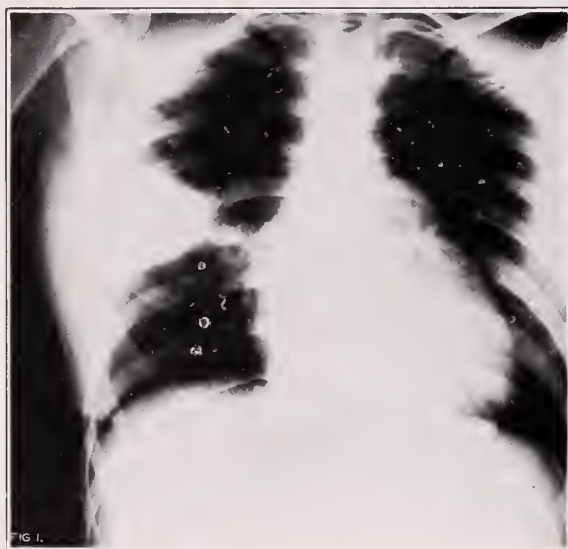


Fig. 1, Mar. 2, 1935.

X-ray re-examination of the chest on March 10, 1935, eight days after admission, showed "a definite circular area of softening in the area of infiltration in the lower part of the right upper lobe. This indicates necrosis and resolution within the inflammatory area. The appearance now is even more suggestive of lung abscess." (Fig. 2)

X-ray re-examination on March 26, 1935, twenty-four days following admission, showed "a marked absorption of the inflammatory process in



Fig. 2, Mar. 10, 1935.

the right upper lobe. There is still some residual shadow which appears to be principally due to thickening in the inter-lobar fissure between the right upper and middle lobes." (Fig. 3)

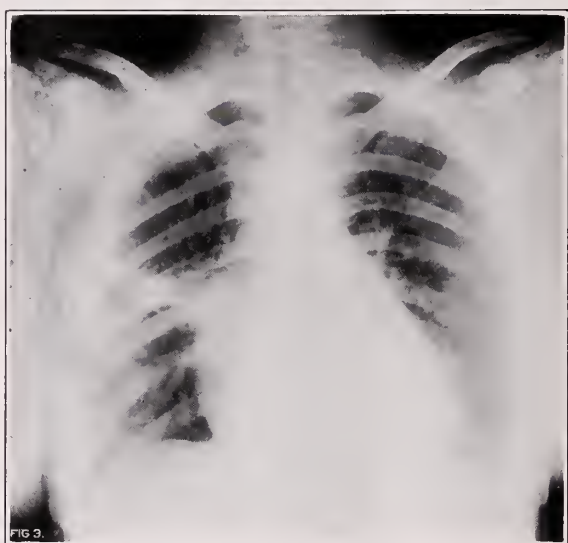


Fig. 3, Mar. 26, 1935.

Physical examination at this time showed a relatively slight diminution of the breath sounds in the region of the angle of the right scapula, otherwise no abnormality could be made out.

The clinical course of the disease was that of a moderately severe pneumonia resolving by lysis without any special form of treatment. The patient's recovery was uneventful and she was discharged as well on April 13, 1935, forty-two days

after admission, at which time there were no complaints and all physical signs were normal.

The patient was seen again as a follow-up case on May 15, 1935, four weeks after her discharge from the hospital, at which time she felt perfectly well and had no complaints. Physical examination revealed no abnormalities. The lungs were clear and resonant throughout. X-ray re-examination of the chest at this time was reported as follows: "Re-examination of the chest compared with the examination made 3/26/35, shows a complete resolution of the process in the lower part of the right upper lobe, there being only a thin residual circular white line indicating the site of the pathological process. Otherwise, the lungs show no definite abnormality. The heart has apparently diminished in size although this cannot be stated definitely, because the earlier examinations were not made at a six-foot target film distance. At this time, the cardiac outline shows no definite abnormality. In reviewing the sequence of events in this case as shown by the serial roentgenograms the findings seem to correspond with an aputrid pulmonary necrosis rather than with the ordinary type of lung abscess." (Fig. 4)

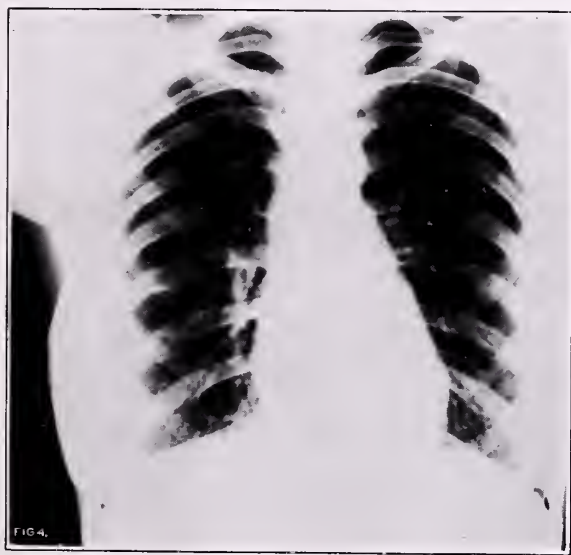


Fig. 4, May 15, 1935.

Comment

In reviewing this case it is apparent that the diagnosis could not be made from either the clinical findings or the roentgenological examinations alone. It was only by the correlation of the clinical findings and the serial roentgenograms that the

diagnosis of aputrid pulmonary necrosis could be definitely established. Clinically, the case conformed to that of a pneumonia; while roentgenologically, the findings in any single examination would be interpreted as conforming to a lung abscess. However, as previously indicated this case differed from a lung abscess in that there was no apparent etiological factor aside from the pneumonia; also in that there was no increased cough, foul sputum or clubbing of the fingers. In addition there were no symptoms referable to the cavity, which healed spontaneously in a relatively short time, required no treatment and apparently had no effect upon the prognosis. The absence of cough and foul sputum was apparently due to the fact that there was no communication with a bronchus and that there were no organisms within the cavity to produce an infection with a foul odor. Atypical tuberculosis was considered but was ruled out by repeated sputa examinations and by the sequence of events in this case, which is characteristic of those cases of aputrid pulmonary necrosis previously described in the literature.²

The possibility of an aputrid pulmonary necrosis should be considered in those cases of pneumonia in which the X-ray findings suggest a lung abscess and where such marked differences exist between the clinical and the roentgenological findings. In such cases it is suggested that serial roentgen studies should be made and checked with the clinical course. This is important because the diagnosis of aputrid pulmonary necrosis as differentiated from lung abscess alters not only the treatment but also the prognosis.

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*From the Medical Service of John F. Kenney, M.D., and the Department of Roentgenology, Emanuel W. Benjamin, M.D., the Memorial Hospital, Pawtucket, R. I., Sept. 5, 1935.

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Thomas, Auguste-Jean: Un cas D'infarctus anémique du poumon, Geneva, Lausanne, 1913.

Discussion

Dr. Emanuel W. Benjamin, Providence, R. I.: The Roentgenograms in this case correspond very closely with those published by Dr. Kessel in 1930. When the area of cavitation first appeared within the consolidated region, the Roentgen interpretation was lung abscess, although the wall of the cavity was rather thin for this type of pathology. At this time a consultation was had with the medical service and it was found that clinically the case did not correspond to lung abscess since the patient did not have any sputum, foul breath, clubbing of the fingers, or other signs or symptoms of this condition. Because of this discrepancy between the clinical and X-ray findings, it was necessary to modify the Roentgen interpretation so that it would harmonize more closely with the clinical aspects. Aputrid pulmonary necrosis was then suggested as a diagnosis to fit this particular case and seemed to correspond with all its phases. I sent the films and clinical abstract to Dr. Wessler of New York, who had been in contact with Dr. Kessel's original cases, and he concurred in the diagnosis. Roentgenologically a differential diagnosis could not be made from the X-ray findings alone. An atypical tuberculous cavity was ruled out by negative sputum examination. In closing I should like to stress the importance in this case of consultation between the clinical and Roentgenological services.

OUR DEAFENED CHILDREN AND HOW WE ARE CARING FOR THEM*

By GORDON BERRY, M.D.
36 PLEASANT ST., WORCESTER, MASS.

A. Introduction

In inviting me to address you, your President suggested that I dwell on the child with defective hearing, his problems and how they are being met. Such a discussion naturally leads us away from the strictly scientific into social and educational fields. Some of the medical fraternity have been hesitant

about entering these fields. There has been debate as to whether we should concern ourselves with any but physiological reactions and clinical data. Most of us seek a middle ground which strives to hold our high scientific attainment, but urges that from this elevated position of honor and trust we serve as leaders for the struggling handicapped who need and deserve wise advice. To whom can they more properly go for such help?

1. Recent National Activities

Renewed zest was given to national activities for our handicapped youth when President Hoover called together that notable group of experts at the White House Conference in 1931. Following this, there were similar smaller assemblies in many states. Probably Rhode Island had such. It was my privilege to join with others in addressing meetings at Springfield and Worcester. We have shown further consciousness of our obligations in our child labor laws and in our child education programs, and President Roosevelt has carried forward the torch by his efforts for crippled and all other handicapped children. As a nation we are gradually fulfilling the mandate of the thirteenth article of President Hoover's Children's Charter where we pledge:

"For every child who is blind, deaf, crippled, or otherwise handicapped, and for the child who is mentally handicapped, such measures as will early discover and diagnose his handicap, provide care for treatment, and so train him that he may be an asset to society rather than a liability."

Certainly the medical profession can wholeheartedly endorse and encourage such a program.

2. The Physically Handicapped

How extensive is the task that this pledge undertakes? In the White House Conference report the totally or partially blind children are estimated at sixty-five thousand. The tuberculous list a million and a quarter. The cardiac group adds half a million. The crippled includes nearly one-third of a million more. The deaf and the hard of hearing children give us the largest group, estimated at over three million. Or a grand national total of over five million. Here is a challenge to all and especially to the doctor who is in the van guard of the attack and must be relied on for the early discovery of these maladies and for the constructive enterprise that relieves the individual ill and institutes preventive measures against its spread or recurrence.

*Read before the Providence Medical Association, Oct. 7, 1935.

B. The Deaf Child

Of these children whom we are considering this evening, those who are so deaf as to be unable to carry forward their education in our public school system offer the more serious problem. They will be found in the 204 schools for the deaf that are scattered throughout the United States, and which care for a total of 19,627 pupils. Here one finds the little tots who have lost perhaps forty per cent or more of their hearing so that special educational methods have to be applied. I wish there were time to discuss at length the fascinating story of the early development of the art of teaching them to speak, and of training their receptive but isolated minds to enter into and take part in the world around them. Shut out and with such limited human contacts, they run wild and partake of a simple animal existence until such devoted and skilled workers as Mr. Crouter take hold. Reference must, however, be made to Jeanie Lippitt and the important part she played. Her father, Henry Lippitt, was Governor of Rhode Island. The year was about 1860. When four years of age, Jeanie lost her hearing and was losing her speech. Her mother with rare foresight began to investigate the available means for her education. She could send her to the "American Asylum for the Deaf and Dumb" at Hartford which at that time was using the sign language and manual spelling. Such a program, however, would not permit Jeanie to enter the normal world around her. The mother learned that in Germany, lip reading and actual speech was being taught these deaf children. Nothing daunted, she discovered all she could and began to teach the child herself. A few years later, eighteen year old Roscoe Greene, also of Providence, deafened by illness at seven, studied for eight months under Miss Harriett B. Rogers at Chelmsford, Massachusetts. In the meantime, John Clarke of Northampton, realizing the need, decided to devote almost his entire fortune to the establishment of a school for the deaf. A charter was sought but the solons on Beacon Hill could not persuade themselves of the need. Finally in 1867, in Mrs. Josiah Quincy's Boston home, state officials, legislators, clergymen and teachers assembled to hear deaf Jeanie Lippitt and Roscoe Greene demonstrate how easily and naturally they could talk with each other and with their audience about their life in Providence, and all skepticism and opposition was swept away. The charter was granted and the Clarke School became

the pioneer in changing existing educational procedures for the deaf in the United States. Not long after, Rhode Island opened its school under the leadership of Mr. J. W. Homer. Later came Mrs. Anna C. Hurd, contributing twenty-six years of faithful service, the last fourteen as its principal; to be succeeded two years ago by Mr. John Yale Crouter whose name enjoys the double heritage of his illustrious father, for many years the principal at the Mt. Airy School for the Deaf which furnished us the majority of our teachers for the war-deafened soldiers at Cape May, and of Miss Caroline A. Yale who as principal of the Clarke School was for so long an outstanding leader in this work. My tale cannot fittingly be closed, however, without one further reference. Jeanie Lippitt married Mr. William Weeden and still lives at Wayland Manor here in Providence, where she continues to exert a positive and benignant influence on this work that is so dear to her heart. Should any of this audience chance to know this gracious lady, I hope he will tell of the tribute we reverently pay her and her pioneer mother.

1. The Rhode Island School for the Deaf

Are you gentlemen familiar with your School for the Deaf at 520 Hope Street? It operates under the General Laws of Rhode Island. The Trustees are nine in number, serving as a rotating body, each for a term of six years. They are appointed by the governor with the advice and consent of the senate. Section 6 tells us that all children between three and twenty years of age whose parents or guardian are legal residents of the state, and "whose hearing or speech, or both, are so defective as to make it inexpedient or impracticable to attend the public schools to advantage, may attend the Rhode Island School for the Deaf without charge, under such rules or regulations as the Board of Trustees may establish." Section 7 makes this attendance compulsory unless the Board of Trustees permits otherwise. The annual report of this School includes notes from the pediatrician, Dr. Frederick A. Smith; the otologist Dr. Francis B. Sargent; the oculist, Dr. N. Darrell Harvey. Last year the operating budget was \$61,330.70 and the total enrollment was 116 pupils. Ground was broken in December for a beautiful and long needed Industrial and Physical Training Building. You have reason to be proud of your School for the Deaf.

2. Causes of Profound Deafness

As doctors we are interested in the causative factors occasioning this deafness. Recent investigations at the Clarke School find 50% to be of known congenital origin; 16% of probably congenital origin; 12% caused by "nose and throat diseases"; 14% by meningitis; and 8% by toxic neuritis, the result of acute infectious diseases. A review of the severity of the hearing loss shows the meningitic form to be the most profound, then the congenital, and least severe are those from "nose and throat diseases"; the amount of the loss running from nearly total up to an approximate forty per cent loss in hearing. None of the children showed absolute deafness. Most of these had acoustic nerve (or perception) deafness, but in many some catarrhal (or conduction) deafness was superimposed. In some instances, the deafness progressed during their school stay. From a medical standpoint, we then find that we can do little for these youngsters, but we can help the next crop. First, the congenitally deaf should not inter-marry and have children. And this rule goes down through several generations, for case-histories show that the deafness may skip one or two generations and then break out again. Second, our earnest efforts in behalf of babies with high septic temperatures, whether meningitic or acute-infectious or of unknown origin, will surely lessen the resulting incidence of acoustic nerve deafness. Third, our conscientious attention to ear conditions in all feverish babies will discover and control many latent cases of acute middle ear sepsis, which otherwise may furnish the 12% of deafness due to "nose and throat diseases" that we have listed. Fourth, we must control in so far as possible all nasal disturbances whether great or small, which are known to have an aggravating influence on existing deafness.

C. The Hard of Hearing Child

Turn now to the less severe but very much larger problem: The hard of hearing child. Here we are dealing with three million scattered the length and breadth of the land. These range roughly from a ten per cent to a forty per cent hearing loss. In contra-distinction to the deaf cases we have been considering, these are more of catarrhal origin, with otosclerotic forms supervening in some. Whereas the education of the deaf has been slowly developed into a high art, that for the hard of hearing is new and far less developed. The first task

was to find them, for strangely enough, in most instances neither parent nor teacher nor child were able to discover the deafness until it was quite pronounced. As a result of the urging of the American Society for the Hard of Hearing, ten years ago acoustic engineering in the Bell Telephone Laboratories developed the 4-A or phono-audiometer, a group testing machine for use in our schools. This is not a diagnostic test but a sifting-out test. Forty children march into the room where the apparatus is set up. Each child has his own receiver, and proceeds to write on a form sheet the numbers he hears given from the phonograph record. These numbers are successively spoken in accurately decreasing intensity. The child with diminished hearing cannot hear the softer numbers. In fifteen minutes the group has recorded its individual hearing acuities and has made way for the next forty. All with nine sensation units (decibels) loss are retested. From these efforts as they are conducted right through each local school system, are found all the doubtful cases, and in their early stages.

1. The Otological Aspect

At this point is presented the double problem: The otological and the educational. That otologist who earnestly seeks to prevent deafness has the golden opportunity to review these incipient cases and institute earnest remedial efforts. He may find a foreign body in the ear and correct the entire trouble by its removal. There may be an acute cold and the hearing may return to normal when this cold subsides. This means that measures must be instituted to prevent these recurring colds. Possibly the adenoids are obstructing or the tonsils diseased or dietetic and hygienic procedures need radical review. Here is a constructive opportunity for each of us who concerns himself with the health of our growing children. In practice, it has been found best to refer all these questionable cases either to a private otologist or to some free diagnostic clinic, depending upon the financial status of the parent. When the trouble has been determined, then the remedy may be attempted. The mass result of such an effort as it is being practised in many of the leading cities of the country is great and far-reaching.

2. The Educational Aspect

Now we are ready to take up the educational program. Perhaps the otologist has ascertained that he

has here not a local pathology but a suspected mental deficiency. This urges a psycho-analytical review. But whatever means are employed, the end result is definite knowledge in the hands of the school department as to the physical handicaps to be considered in the educational handling of each child. For many, a little sympathy and help from the teacher is all that is needed. The child should be placed near the teacher, with his better ear toward her, and with the light from the window shining on her face so that he can read her lips and watch her expression. If this is not enough, he should take lip-reading lessons two or three times a week. The children learn it more easily. It is surprising what help such a program gives. They do not need to be segregated. One lip-reading teacher, travelling from school to school, can teach many children during a week. This has proved of such vital importance that he is penny-wise who is not willing to change the child's weekly schedule and include these three periods of lip-reading instruction.

3. Audiometric Tests in Providence

How is this program being developed here in Providence? Dr. Charles B. Lewis, the director of the Health and Physical Education Department of your school system, has kindly given me some figures. You will be interested in the main items. Providence has secured a phono-audiometer and has tested the grade and trade schools, above the third grade. The total number tested was 20,836. The final result showed 900 or 4.32% with appreciably defective hearing. With the help of the Providence Parent Teachers Association, the Providence League for the Hard of Hearing has been able to secure a 4-A audiometer and conduct school tests in two rural communities. In Smithfield 557 pupils were tested. These showed 4.3% with impaired hearing. In Newport County 6% of the 1256 children were similarly hard of hearing.

The latest Massachusetts figures give 110 cities and towns having audiometric tests made in their public schools.

A recent government project in New York City carried forward under the guidance of the New York League for the Hard of Hearing shows tests conducted in 595 schools on 605,549 children showing a percentage of 11.21% with defective hearing. Before this survey was made, the national figures showed:

School Hearing Tests—United States

Date	1934-1935
Number of 4-A Audiometers used	168
Children tested	1,130,123
9 S. U. loss or more	99,567
" in percentage	8.8%
Examined by otologists	20,449
Hearing restored	1,437
Hearing improved	2,080
Having lip-reading	7,448
Cities reporting lip-reading classes	55

Providence has made a good start but there is still much to do. I am hoping that Dr. Lewis will soon be able so to organize his staff and to secure your medical help that he can put this information to practical use. First, he will need, either in the health department or through volunteer service, the otological assistance that will examine all these children and determine what is the matter. Second, this examination will determine whether any therapeutic aid should be applied and will recommend such application, either through private offices or through clinical facilities. Third, the school program must then be so adjusted for each child as to make up for his physical handicap. This means special class room attention, and lip-reading classes, and in cases of extreme deafness a sending to Mr. Crouter's school for the expert and specialized care he can give.

4. The Expense of Retardation

Some of the city fathers may question the need of such a program, raise objections to the labor and expense. The American Society for the Hard of Hearing appointed a commission of national figures (two prominent otologists, a renowned acoustic engineer, a nationally known lip-reading teacher) to make an inclusive report. Let us see what they have to say about the expense of letting things take their course. I quote:

"In one city where 3,163 children were tested with the phono-audiometer the per capita cost was estimated at 12 cents. In a school in the foreign section where lack of means and of education resulted in poor hygiene and little or no medical care, the percentage of deafness was found to be 25 per cent. In a school where the pupils came about equally from the foreign and the middle class American, it was 15 per cent. Where the children were all from middle class families, the percentage was 10, and in a private school, of children from the homes of wealth, the percentage was less than 1."

"There is waste of money in educating the hard of hearing child by ordinary methods: in one

school fifty-seven hard of hearing children repeated 66 classes; while fifty-seven of normal hearing, picked at random from the same school, repeated 18 classes. Or again, in another city, a careful study of all retarded pupils showed that hard of hearing children who had to repeat grades were three and one-half times as many as those of normal hearing."

"The following statement gives examples of retardation in two groups of children:

<i>"349 Hard of Hearing Children</i>	<i>136 Hard of Hearing Children</i>
Number up to Grade	48
Repeated 1 year	38
2 years	26
3 years	16
4 years	7
5 years	
6 years	1
211 repeated a grade 441 times, at a cost of \$60 each time—total \$26,460.	88 repeated a grade 72 times, costing this one school, \$10,800."

5. The Psychological Aspect

We as doctors know that the pecuniary loss is the smallest item. What of the neglect and ignorance, economic futility and unhappiness that arises when the hard of hearing child drops back through successive classes, to become a failure in school and a social and economic burden throughout his life. It does not even end there. Picture Jack as an energetic boy of fifteen who has dropped back three years, not because of lack of mental activity but because his deafness isolates him from his teacher and his fellows. He is placed with children three years younger, who though physically inferior prove themselves mentally his superior. Jack wants to express himself and earn the admiration of his fellows as much as any other sturdy boy. He must make use of such means as he has at hand. One is his physical advantage. So he fights readily, becomes a bully among his playmates, enjoys thus a leadership of sorts. One day he unwittingly lies and gets away with it. He finds himself somewhat of a hero. Stealing is not difficult, and petty thievery is added to his accomplishments. Wrong yes, but who is there to say him nay? He is doing the best he can toward adjusting himself in a hostile world. Here is being bred the shiftless ne'er do well or the criminal. Or consider Mary, two years his junior. She is made of gentler stuff. She is keen but how she does have to work to keep up. She has found that by watching the teacher closely she can seem to understand a good deal better. She gets part and guesses the rest. Often she errs and is marked

wrong as a result, but with very close attention and painstaking effort she manages to maintain an average rank. Teacher has noticed how intense she is, catches her in irritable moods, finds her twitching at times, decides she will grow into a neures-thenic, warns her unsympathetic mother she had better consult a doctor for her nerves. But though Mary manages in the class room, recess is a different matter. Her playmates find her queer, she does not seem to do her share in games, they get along better if she is left out of the fun. Mary sees them talking together and wonders what unkind things they are saying. Increasingly she gives the teacher some excuse for staying in at recess. At home, she meets with similar difficulties. Her doll and her pussy cat seem to be the only ones to understand. Sooner than the allotted time she steals off to bed, where lonely and unhappy she cries herself to sleep.

Nor need the story be like this. Here is one with a far different ending. "This hard of hearing boy had repeated his classes over and over again. The local system required his remaining at school until he was sixteen. He was extremely unhappy, becoming despondent, morose. Finally his parents interviewed the authorities in an effort to get him excused from school in the hope that he could learn some trade. The doctor examined his ears and discovered the damage irreparable, but he insisted that lip-reading be tried. This was done. He no longer dropped back but forged ahead, graduated, went through college and post-graduate work and now is a professor of mathematics in a western university. That one change made a pitiable failure into a splendid success. Who knows how many failures we are not finding?"

D. Organized Work for the Hard of Hearing

In so far as I know, the hard of hearing are the only one of these different physically handicapped groups that has deliberately and fairly successfully set out to study and remedy its own problems. They have banded themselves into a national organization called the American Society for the Hard of Hearing. It is made up of about one hundred and fifty local leagues or groups. The Providence League for the Hard of Hearing is one. This organization was founded thirteen years ago and now boasts 113 active members. It enjoys club rooms in a down town section so that it will be easily accessible. These rooms at 42 Weybosset Street,

are open every week day from one until half past four and a secretary is there to welcome guests and give such information and help as is desired. Mr. Edwin J. Tetlow is the leader. A few of your members are helping by serving on the Advisory Board. I hope each and every otologist in the city will lend a hand by becoming a member and paying the nominal dues and supporting this splendid work in every way that he can. Note briefly some of the many services this group is rendering your community: a circulating library, illustrated lectures for the hard of hearing and their friends, social assemblies, free lip-reading classes, advice in the selection of hearing aids, help in securing employment.

1. Adjustments

These leagues have young as well as old in their number. The two main crutches or helps they offer these handicapped is: the lip-reading, and the mechanical hearing-aid or ear-phone. Both have their important part to play. Lip-reading offers the advantage that it is always at the individual's command. The disadvantage is that it is a difficult art to learn and requires patience and perseverance and good eye-sight. Also it requires good illumination on a face that it not covered by a mustache, and sufficient nearness to permit the identification of lip-movements. Fortunately children learn this art more easily. If a child has a moderate amount of deafness (say a 15 S. U. loss) or a very mild but progressive form, let me earnestly urge you to see to it that he gets this opportunity. It will be a real asset, even if the hearing should return later, and what a blessing it has proved to all who need it. The ear-phone is simply a magnified telephone. Certain types of deafness hear comparatively well over the telephone, while others find the amplified sounds very confusing. Manufacturers are improving the instruments every year and they are being made to fit the individual need. There are many here in this audience who have some slight hearing impairment. The time will unquestionably come when mild cases of deafness will gain comfort and pleasure from a nicely adjusted and inconspicuous ear-phone, just as many of us could manage without our spectacles but would not think of doing so. It takes a little time to get used to them, they are at times a nuisance, the batteries need replenishing; but even with all this, what a blessing they are. And also, how many there are that should, who do not avail themselves of their delight.

2. Compensations

If we stop to think or inquire, we discover that

relatively few of us are without some physical handicap. As it gradually impressed itself upon our consciousness, we were either stumped by it or took measures to surmount it. In so far as we were successful in the latter, we have adjusted ourselves and do not permit the handicap to disturb our efficiency or our tranquillity. It cheers us sometimes to review what others have done to win through. History is full of stirring illustrations. Do you recall how Moses saw a flaming fiery bush out of which came a Voice bidding him go down to Pharaoh and tell him to let the Children of Israel go? Moses begged off because he stammered.

"And Moses said unto the Lord, O my Lord, I am not eloquent; but I am slow of speech and of a slow tongue. And the Lord said unto him, Who hath made man's mouth? or who maketh the dumb, or deaf, or the seeing, or the blind? Have not I the Lord? Now therefore go, and I will be with thy mouth and teach thee what thou shalt say."

Moses obeyed and became the Leader and Deliverer of a Great People. Demosthenes too had an impediment in his speech. He went down to the sea-shore, put pebbles under his tongue and tried to shout above the noise of the pounding surf. So was molded the silver-tongued orator that swayed the Athenian mob. Lord Byron, the cripple, swam the Hellespont. So did a splendid young lady patient of mine who was very hard of hearing but would not let it keep her from the normal active life she craved. What good did that do her? It showed her that though handicapped, she could go out and do and dare. Pavlowa had trouble with her back but fought through to become the world's greatest dancer. The blind Milton saw visions that we who see can scarcely fathom. Beethoven though deaf created symphonies that will continue to bless a music hungry world.

Is my argument clear? Nature compensates. The wind-swept tree sends out deeper roots; the northern animal grows a heavier fur. A Helen Keller may not show by test that her sense of touch is any more acute, but the things this sense of touch tell her are past our understanding. The little deaf children can make sense out of lip-movements which are a confused jumble to you and to me. In a recent employment survey in Worcester, one of our agents was astonished to discover that some of the hard of hearing people were holding better jobs than hearing men of the same social and educational level. Their impaired hearing was a handicap but adjustments had been found and these men had surmounted their handicap to ultimately excel over their fellows in their given task.

(Continued on page 189)

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EDITORIALS

MEDICAL TEACHING IN RHODE ISLAND

To one in the practice of medicine in any of its branches in the urban or country districts of Rhode Island the thought constantly recurs that in the large clinics in Providence and its environs a splendid opportunity for medical teaching is going to waste. Here in the greatest concentration of population in New England, Boston excepted, with clinical facilities unequalled except in the Massachusetts capital, it seems unfortunate that the pro-

fession and the people of the state do not partake of the advantages that are enjoyed by those who inhabit a medical teaching center. This subject has been mentioned repeatedly in the JOURNAL and will continue to be discussed until the day when a class A medical school is established.

At the present time a healthy spirit of self teaching and study prevails in the large hospitals with department meetings, lectures to the house staff, clinico-pathological conferences and so forth—all of which are of excellent service as far as they go. In addition to this in at least two of our clinics undergraduates from one of the Boston Medical Schools are regularly assigned for work. The state and district societies have never put on better pro-

grams in their scientific meetings and it is to be noted that a healthy proportion of home talent is in evidence. Add to this the fact that sporadic attempts to establish some post-graduate teaching have been made—thus far, it must be admitted, without marked success—and it is evident that the profession is alive to the situation and is doing its best under the circumstances.

What of the need of another class A school in New England? At the present time one of the Boston Schools is able to accept not much over one-tenth of those that apply. The demand is great and will not be denied. When the bars of the class A schools are raised against those of the candidates who are less acceptable what happens? A large proportion of them, instead of deciding to take up some other less attractive career, persist and fill the rolls at inferior schools here or abroad, each man later to establish himself as a badly trained practitioner, a public menace and a drag on medical progress—or else tragically to find the bars of state registration raised against him with no recourse but a career of charlatanism or a search for a haven elsewhere in which he can eke out a semi-honest living. Another class A school would make efficient practitioners of many such men and would aid the forces at work to close the diploma mills. To establish such a school clinical facilities are not lacking, able clinicians are available, teachers in the laboratory branches are obtainable. Everything is ready except one thing, which will be needed in no small amount—money.

CARE OF DEAFENED CHILDREN

The Providence Medical Association was fortunate last month in hearing Dr. Gordon Berry of Worcester tell about the work that is being done for deafened children. New Haven, Boston, Springfield, Portland and Worcester are active in this, but the rural districts are not so well off. Unfortunately, in Rhode Island, except for our excellent school for the deaf, little has been done, and these several thousand deafened children are growing up without special care, to lead in many cases unhappy, frustrated lives.

A program for deafened children has three steps: (1) testing of all children in order to recognize early deafness; (2) otologic diagnosis and treatment; (3) educational care, including special class-

room privileges and lip reading instruction and practice.

The strictly medical part of the problem would seem to be best handled by having an otologist go into the schools to see the questionable cases and then have the truly deafened cases referred to a private otologist.

A committee of the Providence Medical Association has been appointed to help advance this program in the City of Providence. The need of such a program in the rural districts of the state is even more pressing. We physicians should bear this problem in mind and give the program a push whenever we have a chance.

OUR DEAFENED CHILDREN AND HOW WE ARE CARING FOR THEM

(Continued from page 187)

To us who would "grasp this sorry Scheme of Things entire, and re-mould it nearer to the Heart's Desire!" a program looking toward furnishing to the handicapped the means of adjustment has a special appeal. The White House Conference formulated a Bill of Rights which expresses this idea in better words than I can command.

"The handicapped child has a right:—

1. To as vigorous a body as human skill can give him.
2. To an education so adapted to his handicap that he can be economically independent and have the chance for the fullest life of which he is capable.
3. To be brought up and educated by those who understand the nature of the burden he has to bear and who consider it a privilege to help him bear it.
4. To grow up in a world which does not set him apart, which looks at him, not with scorn or pity or ridicule—but which welcomes him, exactly as it welcomes every child, which offers him identical privileges and identical responsibilities.
5. To a life on which his handicap casts no shadow, but which is full day by day with those things which make it worth while, with comradeship, love, work, play, laughter, and tears—a life in which these things bring continually increasing growth, richness, release of energies, joy in achievement."

E. Conclusion

My remarks have touched but the high spots. Only so can I attempt the entire story in this short space. This is confessedly not purely a medical

problem, but early in its progress it must necessarily come before a doctor for review and advice. We are busy people. We are constantly having our sympathies called upon. By necessity we have built up a sort of defense mechanism which leads some to consider us "hard-boiled." But you know and I know that no group is more sensitive to real suffering or more anxious to alleviate pain or set the crooked straight. The physically handicapped never seek our help in vain; we are proud of this attribute, loyal to this heritage. I come tonight to tell you of a little understood group that deserves our best skill and our keenest understanding. I thank you for the privilege of addressing you about them. I bespeak at your hands, and at the hands of your public officials and educational authorities, the kindly support and help these unhappy and deserving children so need.

SOCIETIES

THE PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Wm. P. Buffum, Monday evening, Oct. 7, 1935, at 8:55 o'clock. The records of the last meeting were read and approved. The Standing Committee having approved their applications the following were elected to membership:

Dimetra Tsina-Elia, Vincent T. A. Bianchini, Mary Corcione, Jos. C. Flynn, Harold F. Harrington, Walter E. Hayes, Howard G. Laskey, Samuel Pritzker, Rodrigo P. DaC. Rego, Michael A. Tarro, Fredr. A. Webster, Daniel D. Young.

Dr. Arthur T. Jones read an obituary of Dr. John W. Keefe. It was voted to spread this on the record, send a copy to the family and print it in the JOURNAL.

The Standing Committee having advised such a motion, it was voted that the President appoint a committee of seven, with the President ex-officio in addition, to consider the advisability of adopting plans for the medical care of the low income group.

Mr. Russell of the Lions outlined a plan of campaign for the examination of 1,000 well babies with reports of defects and recognition and prize for the best with attendant publicity for educational purposes. Our approval and support was voted.

Dr. Gordon Berry of Worcester read a paper on "Our Deaf Children and How We Are Caring for Them." It was a treat to hear such a beautifully prepared and presented paper and he paid us the compliment of writing it from the viewpoint of Providence's especial part in this work.

It is estimated that there are 3,000,000 hard of hearing in the country and it is a problem to care for those too deaf for the ordinary schoolwork. There are 204 schools for the deaf with an enrollment of 19,637.

Jeannie Lippitt of Providence about 1860 was taught lip reading by her mother and a few years later Roscoe Greene of this city also learned it. A demonstration by these two led to the founding of the Clarke School, the pioneer in the United States. The Rhode Island School for the Deaf carries on this work here. Fifty per cent of the deaf are of congenital origin and these should not intermarry. In the care of the deaf the first task is to find them, and in the schools the audiometer testing 40 at a time does this. Lip reading and mechanical aids to hearing of course are the outstanding helps and there are now classes for the former in 55 cities. Luella McDonald, a young girl who has studied lip reading for a few months, gave an interesting exhibition under the able showmanship of Dr. James W. Leech.

On the motion of Dr. L. B. Porter it was voted that the President discuss with the Standing Committee the advisability of having a committee appointed to confer with other interested groups in formulating a plan for constructive co-operative action in dealing with hard of hearing children. Dr. McCabe discussed this.

Dr. Adolph W. Eckstein showed movies of the Emergency Treatment of Fractures from the Fracture Service of the Rhode Island Hospital, accompanying it with an explanatory talk. During the war the army traction splints saved shock and suffering by means of fixation and traction easily applied. Using practically this apparatus the internes on the ambulances "splint them where they lie." These pictures are used to instruct the internes and the public. Dr. Danforth discussed this work.

The meeting adjourned at 10:55. Attendance, 117. Collation was served.

Respectfully submitted,

PETER PINEO CHASE

IMPORTANT NOTICES

AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

Drs. Fulton and Wells announce that Dr. Frank B. Cutts, after November 1, 1935, and Dr. John C. Ham, after January 1, 1936, will be associated with them.

BOOK REVIEWS

YEAR BOOK OF GENERAL THERAPEUTICS, 1934. Fantus. p. 462. The Year Book Publishers, Chicago, 1935.

Always a welcome volume. Well indexed, well arranged, it has most of the advances in therapeutics. The editor does not comment on his articles as much as usual. The preface alone—five pages—gives a review of the newer advances in medicine. This book contains a great deal of meat and priced at a little over two dollars, makes one of the most inexpensive medical books we have. It will always be referred to in every-day practice. Flexible covers might be a welcome change to the Year Book publications.

YEAR BOOK OF GENERAL MEDICINE, 1934. Dick, Brown, Minot, Stroud and Eusterman. p. 483. Year Book Publishers, Chicago, 1935.

Full of good stuff. The editors have read their selections carefully and their comments alone are extremely valuable, for these comments bring out, in a few words, the minds of the editors. Part One is Infectious Diseases; Part Two, Diseases of the Chest; Part Three, Diseases of the Blood and Blood-forming Organs; Part Four, Diseases of the Heart and Blood Vessels; Part Five, Diseases of the Gastro-Intestinal Tract. Each department is well covered. Take the section of Blood Diseases, for example. It is evident that Minot and Costle take this work very seriously. They give intimate comments as they go along. And these comments are priceless. This volume is one of the best the reviewer sees and each year he looks forward to its publication. It is an inexpensive book—about \$3.00. Flexible covers would improve it. Every inch of space on the pages is utilized. The type is easy to read.

Title: "Review of Medical Progress—1935."
Editor-in-Chief: George Morris Piersol, B.S., M.D. *Assistant Editor:* Edward L. Bortz, A.B., M.D. *Publisher:* F. A. Davis & Company, Philadelphia, Pa.

This volume of about 1200 pages is bound in a flexible leather covering of good quality and the print is very easy to read. Besides the editor-in-chief and the assistant editor, there are forty-six associate editors, most of them located in Philadelphia. Several of them, however, are located in New York, Chicago, Boston, and elsewhere. All the editors are associated with medical school teaching or else with large hospitals, and each was selected to write a chapter on his particular specialty.

The subject contents are largely confined to new things which have appeared within the last year or two in the literature and the experience of the authors in their particular specialty.

All the specialties are included as well as general medicine, surgery, and chapters appear on radiology and pathology, and a very good chapter on therapeutics and physical therapy.

It is well illustrated with eighty-nine good illustrations.

This book is particularly valuable to the general practitioner as well as to the specialist.

COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

Radiation Therapy of Renal Cortical Neoplasms. Waters et al., *The Southern M. J.*, 4:290, 1934, point out that tumors of the hypernephroma type and embryonal carcinomata are radiosensitive and that irradiation has caused a striking reduction in the size of radiosensitive renal tumors. Normal renal tissue has not been damaged in the authors' cases.

* * * *

Subacute Bacterial Endocarditis. There is evidence to indicate that the streptococcus probably requires a previously diseased or abnormal endocardium on which to implant itself, according to Weiss, *Arch. Int. Med.*, 54:710, 1934. Tonsillectomy or extraction of a tooth may closely antedate the onset of symptoms, indicating that trauma of an infective focus may produce transient bacteremia and thus play a part in promoting implantation on the endocardium. (In senile patients, the extraction of a tooth is sometimes followed by coronary symptoms.—T.)

* * * *

Effect of Theobromine on Peripheral Vascular Disease. Scupham, *Arch. Int. Med.*, 54:685, 1934, concludes that theobromine and its salts, particularly theobromine sodium acetate, act as peripheral vasodilators and that they are useful in the treatment of peripheral arteriosclerosis and early cases of thrombo-angitis obliterans where there is a large element of angiospasm.

* * * *

Sinusitis in Children. Marks, *Kentucky M. J.*, 5:214, 1935, states that digestive disorders, gastroenteritis, rheumatic fever, arthritis, nephritis, pyelitis, cardiac failure with muscular changes and asthma sometimes follows sinusitis in children and in chronic cases—anemia, loss of appetite and malnutrition are quite common. (Very common and not too often recognized. There are many chest conditions which look like t. b. which clear up when sinusitis is cured. Any child who does not eat well or who has a chronic nasal irritation should be suspected of having sinusitis. Many have no symptoms referable to the sinus. One can get an abscess in the antrum without local symptoms.—T.)

* * * *

Joslin's new book on diabetes is a masterpiece.

Epival. Veal, Hamilton and Farrington, *New Orleans M. and S. J.*, 11:746, 1935, state that their experience with epival intravenously as an anesthetic has been satisfactory in 100 cases. They warn to use it in selected cases for procedures of short duration. Contraindicated in liver or renal damage, hyper or hypotension, cachetic, toxic and debilitated cases. It is a potent drug and it carries with it the risk inherent to all intravenous anesthesia.

* * *

Examination of Oysters and Water from Narragansett Bay. Fisher and Acker, *Public Health Reports*, 50:1449, October 18, 1935, conclude that the quality of the water is better in winter and early spring than it is in the late fall and as the quality of the water is better in winter and spring than in the fall, so also does the quality of the oysters tend to improve. A marked improvement in the quality of oysters occurs within about 1 deg. C. of the freezing point. (There is a great deal of public health work to be done in the State. More funds must be forthcoming to carry on. There are many areas where shell fish are grown where the water could be improved the year round by better sewage conditions. We still have a zero rating at Washington in public health work, due to lack of organization and lack of funds. The present department of health in this State is doing excellent work.—M. W. T.)

* * *

Numbness in the toes may be a sign of prostatic disease.

* * * *

Chronic Arthritis. Walter Bauer, N. E. J. M., 14: 652, 1935, prefers to think of rheumatoid arthritis as a chronic infectious disease of unknown origin, unrelated to focal infection. He says: "If one carefully studies and follows a group of patients with rheumatoid arthritis for a long period, he finds it increasingly more difficult to obtain convincing evidence favoring either the focal infection, toxic, allergic, or eclectic theory." He looks upon rheumatoid arthritis as a chronic disease of unknown etiology, characterized by remissions and relapses. It is important to remember that such remissions may occur when least expected and may last months or years. (Coming from such an authority, we must forget some of our pet theories.—M. W. T.)



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